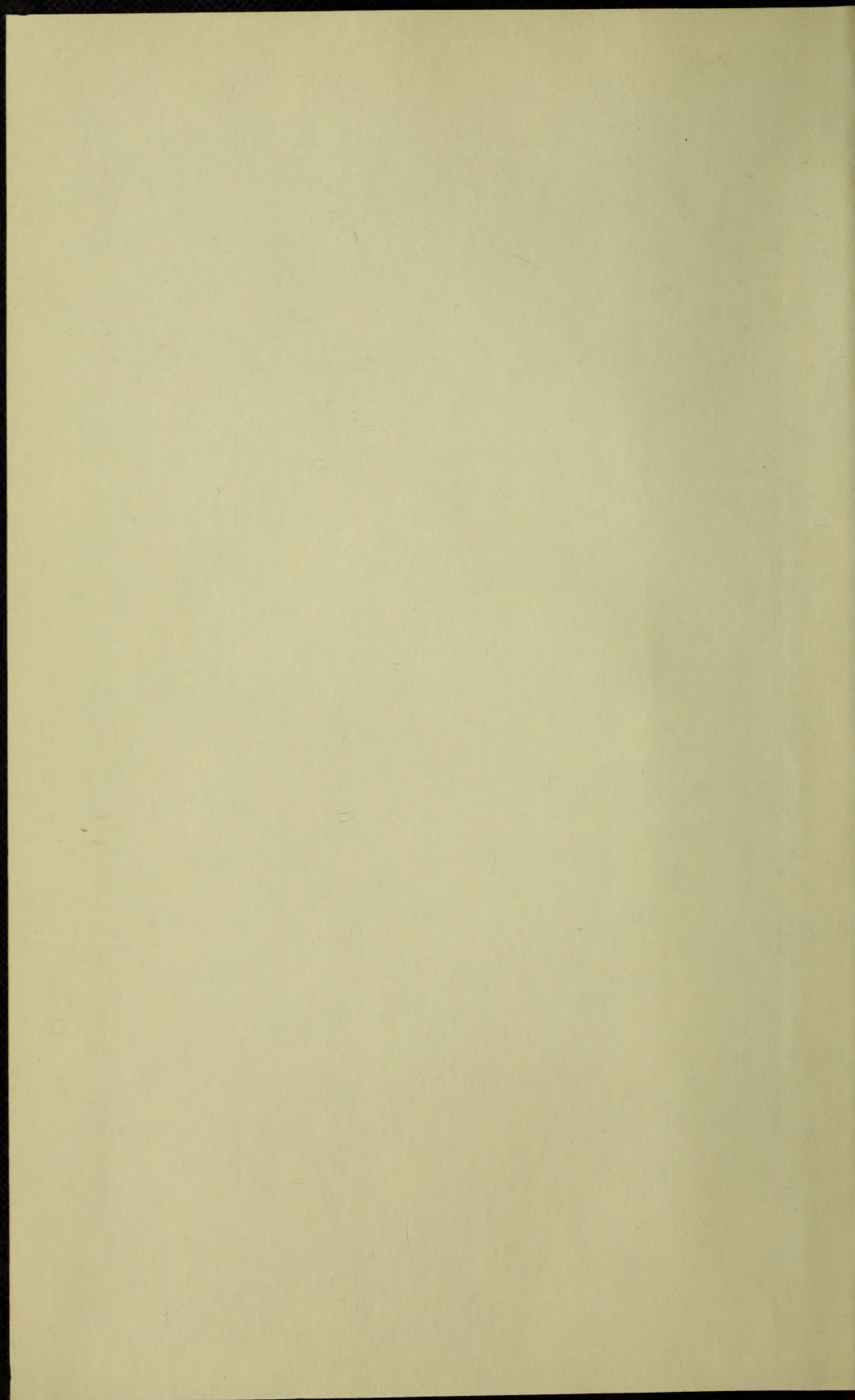
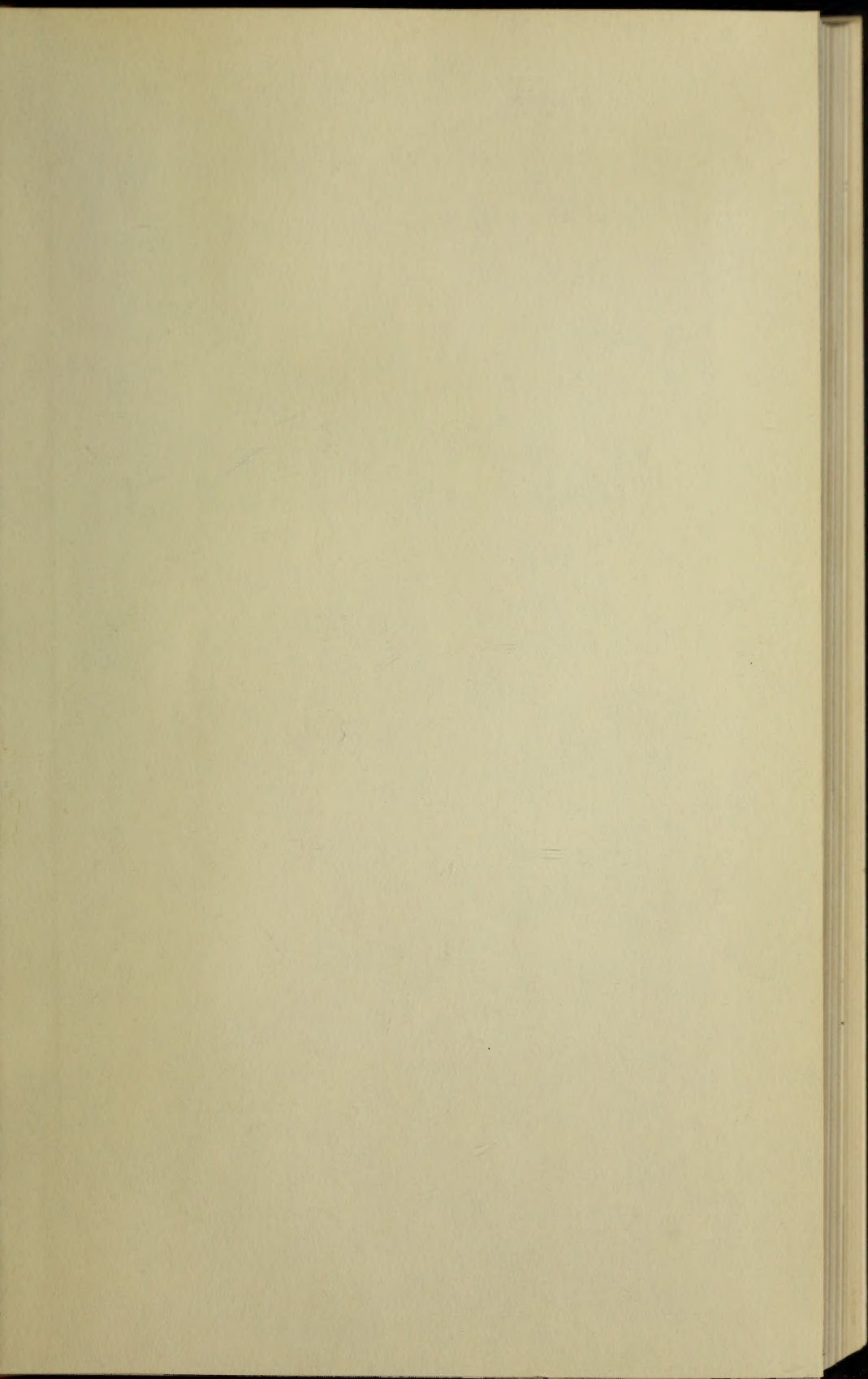


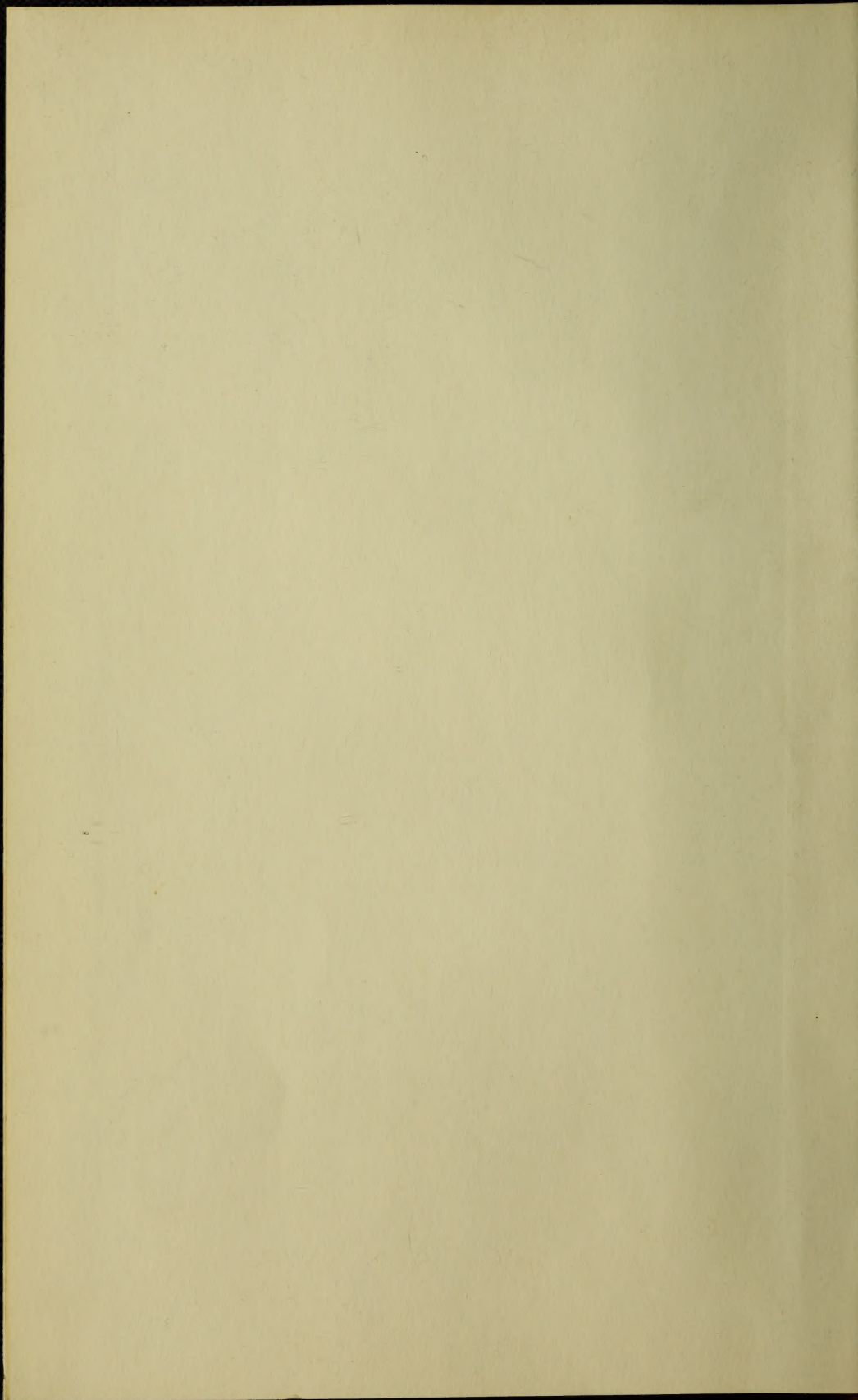
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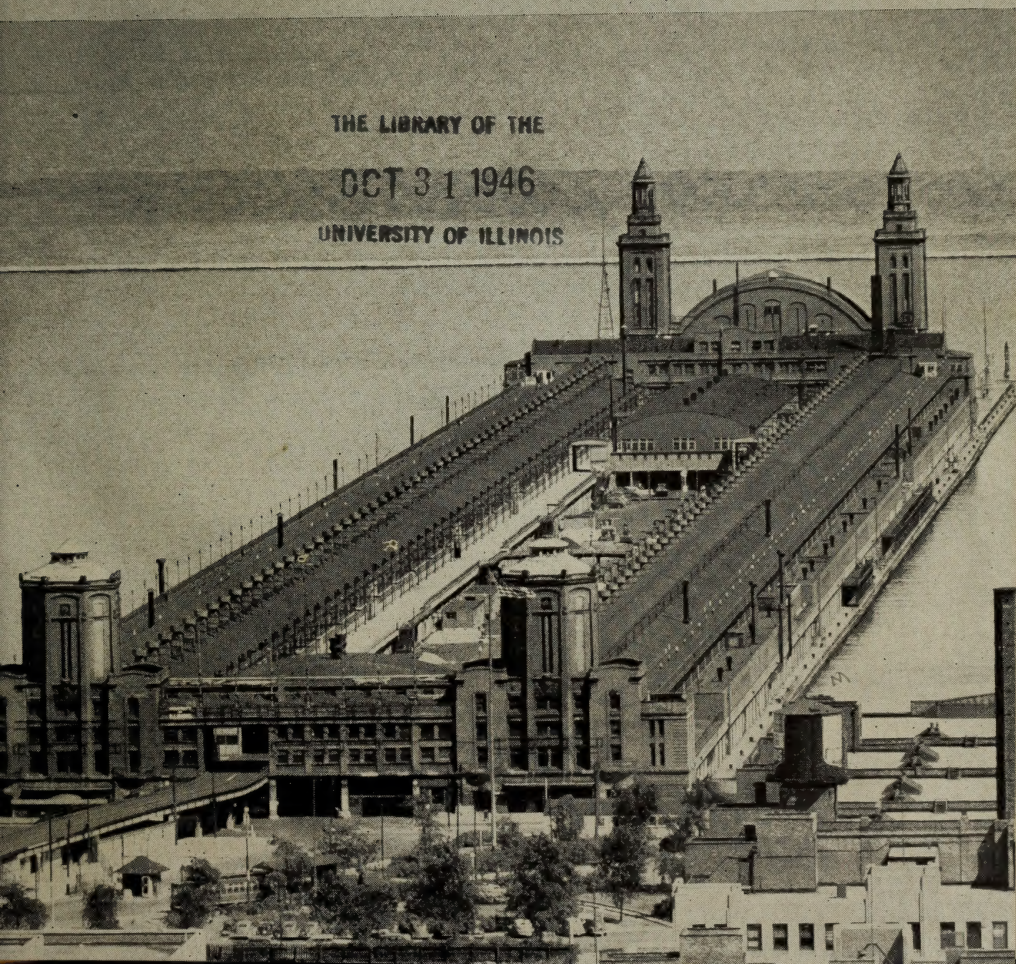
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INFORMATION HANDBOOK

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CALENDAR

(Subject to change)

FIRST SEMESTER

1946

October 14, Monday — October 17, Thursday.....Registration
October 21, Monday.....Instruction Begins
November 27, Wednesday, 12 m.....Thanksgiving Vacation Begins
December 2, Monday, 1 p.m.....Thanksgiving Vacation Ends
December 21, Saturday, 8 a.m.....Christmas Vacation Begins

1947

January 6, Monday, 8 a.m.....Christmas Vacation Ends
February 12, Wednesday — February 20, Thursday.....Semester Examinations

SECOND SEMESTER

March 10, Monday — March 13, Thursday.....Registration
March 17, Monday.....Instruction Begins
April 3, Thursday, 12 m.....Easter Vacation Begins
April 7, Monday, 1 p.m.....Easter Vacation Ends
June 24, Tuesday — July 2, Wednesday.....Semester Examinations

SUMMER SESSION (Eight Weeks)

July 14, Monday — July 15, Tuesday.....Registration
July 16, Wednesday.....Instruction Begins
September 5, Friday — September 6, Saturday.....Semester Examinations

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STATEMENT OF POLICY

THE CHICAGO UNDERGRADUATE DIVISION of the University of Illinois was established at Navy Pier as part of the program of the State to meet its share of the national emergency in higher education resulting from the overwhelmingly increased demand, primarily by veterans, for instruction at the University level.

Courses at the freshman and sophomore levels are offered in the College of Engineering, the College of Commerce and Business Administration, and the College of Liberal Arts and Sciences (except Home Economics laboratory work). In addition, Architecture courses in the College of Fine and Applied Arts are being offered.

The program has been organized to provide for 4,000 students. Enrollment has been limited to qualified students residing in the Chicago area. Every effort will be made to integrate the instructional program with the cultural and other resources of the City of Chicago so that a superior educational unit may be developed.

Course offerings are identical with those made available to comparable students in undergraduate work on the Urbana campus. In large measure, the administrative organization is identical with that existing downstate. The fee schedule is identical with that of the Urbana campus, and, insofar as possible, the academic calendar will coincide with the University's schedule in Urbana.

Suitable adjustments will be made in the academic program to provide facilities of a semi-professional and technical nature for those students who are qualified to succeed in a terminal program rather than one designed for further studies at the college level.

The University, as a public institution, desires that every enrollee shall have the best possible opportunity to develop his individual capacities to their fullest degree. The Undergraduate Division in Chicago, through its educational, social, and cultural program, will provide its student body with the same high degree of service which has been so long a part of the University's tradition.

CHARLES C. CAVENY
Dean

ADMINISTRATIVE OFFICERS
CHICAGO UNDERGRADUATE DIVISION
NAVY PIER

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EDWIN A. WOLLESON	Dean of Students
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MISS RUTH LEITCH	Dean of Women
PAUL C. GREENE.....	Director Student Personnel Bureau
DR. EARL B. ERSKINE.....	Director Health Service
HAROLD E. TEMMER	Examiner and Recorder

GENERAL REQUIREMENTS FOR ADMISSION

Age—An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian or with someone selected by them.

High School Graduation—Ordinarily an applicant for admission by certificate must be a graduate of an accredited secondary school. However, an applicant who is a high school senior, who meets the age requirement, and who ranks in the upper twenty-five per cent of his class, may be admitted to the University under the following conditions:

1. He must be recommended for admission by a committee of his high school faculty, consisting of the principal and at least three teachers, one of whom shall be a pupil counselor if the school has in operation an organized guidance program.

2. He must have completed not fewer than 14 units acceptable toward admission (10 units in a three-year senior high school), including all subjects prescribed for admission to the particular curriculum in which he wishes to enroll.

3. He must demonstrate that he possesses the intellectual ability, social maturity, and emotional stability essential to success in college by passing satisfactorily such tests as may be prescribed and administered by the Personnel Bureau of the University of Illinois. In general, a rank below the 75th percentile on University of Illinois norms in these tests will be cause for denial of admission. If the applicant has taken the tests given in many high schools through the Illinois High School Testing Program, the results of those tests will be considered along with the results of tests given by the Personnel Bureau.

High School Scholarship—An applicant for admission to the University whose rank in scholarship is in the upper three-quarters of his graduating class and who meets the requirements as stated below is admitted by certificate to full freshman standing. Furthermore, the Registrar is authorized to admit, without adhering to the usual requirements as they pertain to majors and minors, an applicant whose rank in scholarship is in the upper fifty per cent of his graduating class. Such a student, however, must present those specific high school courses that are prerequisite to courses in the curriculum which he desires to follow in the University.

A graduate of an accredited high school whose rank in scholarship is in the lowest quarter of his graduating class and who meets the requirements as stated below is admitted by certificate to probationary status and, in connection with his first registration in the University, is required to take such tests as may be prescribed by the Personnel Bureau. Such a student, immediately upon registration, is placed under the special supervision of the dean of the college in which he is enrolled. He may be required by the dean or director to carry a reduced program of work or a program especially arranged to meet his needs.

Graduates of Unaccredited Secondary Schools—The Registrar is authorized to admit a student who is a graduate of an unaccredited secondary school and whose general scholarship rank is in the upper twenty-five per cent of his graduating class, subject to his passing examinations at the University in advance of admission in: (1) English composition and rhetoric; and (2) other high school subjects necessary to complete the requirements.

DEFINITIONS

A *unit* in the secondary school is a course covering an academic year and including not less than the equivalent of 120 clock hours of classroom work.

A *major* is three unit courses in one field.

A *minor* is two unit courses in one field.

Fifteen units of acceptable secondary school work are required, including:

(A) Two majors and one minor, selected from Groups 1-5 on page 9. *One of the majors must be English.*

(B) A total of at least nine units from the fields of English, foreign language, mathematics, science, and social studies, including preparation amounting to a major or minor sequence in at least three different fields.

(C) All subjects required for the curriculum which the applicant desires to enter. (See table on next page.)

(D) Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards. Fractional credits of less than one-half will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

ADMISSION OF WAR VETERANS

Veterans may enter the University in any of the colleges for which they have the essential prerequisites. They may qualify for admission under the entrance requirements described on pages 8 and 9 or on the basis of previous work in college, graduation from high school, the passing of examinations, or other satisfactory demonstration of ability to carry college work.

All high school and college credentials should be sent to the Registrar's office, Navy Pier, for evaluation.

Veterans planning to attend the University under the G.I. Bill should send their Certificates of Eligibility to the Registrar's Office after September 1 and before the date of registration. Honorable discharge papers and credentials showing special training courses completed in the armed services should be presented to determine what credit, if any, may be allowed.

REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects Required</i>	<i>Subjects Recommended</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, Entomology, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾</p>	<p>Language, 3 units in one language, instead of the required 2 units.</p> <p>Science, 2 units (including biology).</p> <p>Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine.⁽⁴⁾</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Mathematics, 3 units, instead of the required 2 units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1½ units Geometry, 1 unit</p>	<p>Language, 4 units (including 2 units in French and 2 units in German).</p> <p>Mathematics, 3 units, instead of the required 2½ units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p>
<p style="text-align: center;">COLLEGE OF COMMERCE</p> <p>All fields (Accountancy, Banking and Finance, Commerce and Law, Economics).</p>	<p>English, 3 units⁽¹⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Advanced algebra, 1½ units.</p> <p>Science, 2 units (including 1 unit with laboratory).</p>
<p style="text-align: center;">COLLEGE OF ENGINEERING</p> <p>All Curricula (Aeronautical, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).</p> <p>Curricula in Architecture.</p>	<p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Plane Geometry, 1 unit Solid Geometry, 1 unit⁽³⁾</p> <p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Geometry, 1 unit</p>	<p>Language, 2 units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p> <p>Industrial Arts, 2 units.</p> <p>Freehand Drawing, 1 unit.</p> <p>Science, 2 units (including physics and chemistry).</p> <p>Social Studies, 2 units (including economics and history).</p>

(1), (2), (3), (4) See page 9 for additional description.

(1) ENGLISH

Only courses in history and appreciation of literature, and in composition (including oral composition as a part of a basic English course), and grammar, will count toward the three units in English required as a major for admission to all curricula. Four units in English, while not required for any curriculum, are recommended by all the colleges and schools.

(2) LANGUAGE

The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, Spanish, Italian, Latin, Greek. For some curricula three units in one language are recommended, and for some it is advantageous to have four units in one language or a combination of languages. Less than one unit in a language is not acceptable for admission.

(3) MATHEMATICS

In Engineering or Architecture where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence. Where one unit in algebra and one unit in geometry are required for admission, general mathematics will be accepted if the content of the course is essentially the same as that ordinarily included in algebra and plane geometry. For all curricula involving chemistry (to which one unit in physics or chemistry or $2\frac{1}{2}$ units in mathematics are prerequisite), students without credit in physics or chemistry who have only two units in mathematics will be required to take college algebra.

(4) PRE-MEDICAL REQUIREMENT

A student entering the pre-medical curriculum as a freshman must have a scholarship rank in the upper half of his high school graduating class. A student transferring to this curriculum from another college or university must have a scholastic average in his collegiate work not less than 3.5 in terms of the grading system of the University of Illinois.

MAJORS AND MINORS

The required majors and minors defined above may be selected from the following five groups: (1) English—(In all cases one major must be in English.) Only courses in history and appreciation of literature, composition (including oral composition as a part of a basic English course), and grammar will count toward a major. (2) Foreign Language—Three units in one language constitute a major. Two units in one language constitute a minor. (3) Mathematics—Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases where the content of the course is essentially the same as that ordinarily included in algebra and geometry.) (4) Science—(Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology.) The three units required for a major must include at least one unit from the above subjects. (5) Social Studies—(Including history, civics, economics, commercial or economic geography, and sociology.) The three units required for a major must include at least two units in history. The two required for a minor must include at least one unit in history.

COLLEGE OF LIBERAL ARTS AND SCIENCES

THE GENERAL CURRICULUM in the College of Liberal Arts and Sciences offered at the Undergraduate Division in Chicago is aimed at giving the student a well-balanced intellectual development. It provides the resources for a liberal education, which emphasizes subjects leading to a general knowledge and interpretation of the cultures of both the past and present. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Students in this curriculum are encouraged to develop interest and talents supplementing their major subjects.

The first two years of undergraduate work are offered in the following fields: Pre-teacher training; Pre-law; Pre-journalism; Chemistry and chemical engineering; Pre-medicine; and Pre-dentistry.

Courses to be offered at the Undergraduate Division in Chicago:

BACTERIOLOGY

- 5a. INTRODUCTORY BACTERIOLOGY.—(3).* *Prerequisite:* Sophomore standing or consent of instructor.
- 5b. INTRODUCTORY BACTERIOLOGY LABORATORY.—(2). *Prerequisite:* Bacteriology 5a or concurrent registration therein.

BOTANY

- 1a. INTRODUCTORY BOTANY.—(3).
- 1b. INTRODUCTORY BOTANY LABORATORY.—(2). *Prerequisite:* Botany 1a or concurrent registration therein.
- 16. ECONOMIC BOTANY.—(3). *Prerequisite:* Botany 1a or 1b.

CHEMISTRY

- 1. INORGANIC CHEMISTRY.—(5). *Prerequisite:* One unit of entrance credit in physics or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in mathematics 2 or 3.
- 2. INORGANIC CHEMISTRY.—(3). *Prerequisite:* One unit of entrance credit in chemistry.
- 3. INORGANIC CHEMISTRY.—(4). For engineering students. Students who have received entrance credit for high school chemistry are given only 3 hours credit for Chemistry 3.
- 4. CHEMISTRY OF METALLIC ELEMENTS.—(4). For engineering students. *Prerequisite:* Chemistry 1, 2 or 3.
- 5. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.—(5). For non-engineers and non-chemistry majors. *Prerequisite:* Chemistry 1, 2 or 3.
- 6. INORGANIC CHEMISTRY.—(5). For chemical engineers and chemistry majors. *Prerequisite:* Chemistry 1, 2 or 3. Credit in Chemistry 6 will not be granted to students who have received credit in Chemistry 4 or 5.
- 10. QUALITATIVE ANALYSIS.—(5). *Prerequisite:* Chemistry 6.
- 22. ELEMENTS OF QUANTITATIVE ANALYSIS.—(5). *Prerequisite:* Chemistry 4 or 5.
- 24. QUANTITATIVE ANALYSIS.—(5). For chemistry majors. *Prerequisite:* Chemistry 10.
- 33. ELEMENTARY ORGANIC CHEMISTRY.—(5). For pre-medical students. *Prerequisite:* Chemistry 5 or 10.
- 34. ORGANIC CHEMISTRY.—(5). For chemical engineers and chemistry majors. *Prerequisite:* Chemistry 6, 10, and 24.

* Figures in parenthesis indicate number of credit hours offered for the course.

ENGLISH

- 10a. TYPES OF POETRY.—(3). Credit is not given for English 11a or 11b in addition to English 10a, or for any of these courses in addition to English 20a and 20b. *Prerequisite:* Minimum entrance requirement in English.
- 10b. STUDY OF DRAMA.—(3). See note under English 10a. *Prerequisite:* English 10a or 11a.
- 11a. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite:* Minimum entrance requirement in English.
- 11b. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite:* English 11a.
12. AMERICAN LITERATURE.—(2). *Prerequisite:* Sophomore standing or exemption from Rhetoric 2.
- 20a. CHIEF ENGLISH WRITERS OF THE 19TH CENTURY.—(4). For non-English majors. See note under English 10a. *Prerequisite:* Sophomore standing.
23. INTRODUCTION TO SHAKESPEARE.—(3). *Prerequisite:* Sophomore standing or exemption from Rhetoric 2.

RHETORIC

0. RHETORIC AND COMPOSITION.—(No credit). Open to students who fail the placement test for admission to Rhetoric 1.
1. RHETORIC AND COMPOSITION.—(3). *Prerequisite:* A passing grade on the Rhetoric 1 placement examination or a passing grade in Rhetoric 0.
2. RHETORIC AND COMPOSITION.—(3). *Prerequisite:* Rhetoric 1 or exemption from Rhetoric 1.
3. EXPOSITION.—(3). *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
4. NARRATION AND DESCRIPTION.—(3). *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
5. RHETORIC AND COMPOSITION.—(3). Required of students who fail the qualifying examination.
10. BUSINESS LETTER WRITING.—(2). *Prerequisite:* Rhetoric 1 and 2.

SPEECH

1. PRINCIPLES OF EFFECTIVE SPEAKING.—(3). Open to freshmen.
2. BUSINESS AND PROFESSIONAL SPEAKING.—(2). *Prerequisite:* Speech 1; sophomore standing.
10. ORAL INTERPRETATION OF LITERATURE.—(2). Open to freshmen.

ENTOMOLOGY

2. INSECTS: Their Life and Importance to Man.—(2). *Prerequisite:* Sophomore standing.

FRENCH

- 1a. ELEMENTARY FRENCH.—(4).
- 1b. ELEMENTARY FRENCH (CONTINUED).—(4). *Prerequisite:* French 1a or one year of high school French.
- 2a. MODERN FRENCH.—(4). *Prerequisite:* French 1b or two years of high school French.
- 2b. MODERN FRENCH (CONTINUED).—(4). *Prerequisite:* French 2a or three years of high school French.
- 3a. INTRODUCTION TO FRENCH LITERATURE.—(3). *Prerequisite:* French 2b or four years of high school French.

GEOGRAPHY

1. ELEMENTS OF GEOGRAPHY.—(5).
2. ECONOMIC GEOGRAPHY.—(5). *Prerequisite:* Geography 1.
22. GENERAL GEOGRAPHY.—(5). For Commerce students only.

GEOLOGY

1. GENERAL GEOLOGY.—(3).
- 1a. GENERAL GEOLOGY LABORATORY.—(2). *Prerequisite:* Geology 1 or concurrent registration therein.
- 2a. HISTORICAL GEOLOGY.—(4). *Prerequisite:* Geology 1.
20. GENERAL MINERALOGY.—(3). *Prerequisite:* One semester of chemistry.
43. ENGINEERING GEOLOGY.—(3). *Prerequisite:* Sophomore standing in the College of Engineering.

GERMAN

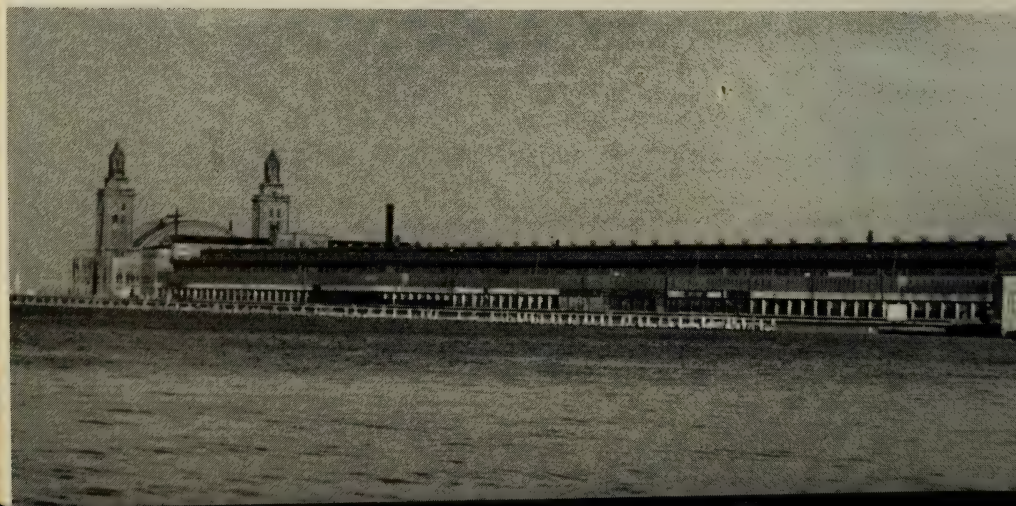
1. ELEMENTARY GERMAN.—(4).
2. ELEMENTARY COURSE (CONTINUED).—(4). *Prerequisite:* German 1 or one year of high school German.
4. INTERMEDIATE COURSE.—(4). *Prerequisite:* German 2 or two years of high school German.
5. INTERMEDIATE COURSE (CONTINUED).—(4). *Prerequisite:* German 4 or three years of high school German.

HISTORY

- 1a. CONTINENTAL EUROPEAN HISTORY TO 1815.—(4).
- 2a. HISTORY OF ENGLAND.—(3).
- 3a. HISTORY OF THE UNITED STATES TO 1828.—(3). *Prerequisite:* Sophomore standing.
- 5a. THE ANCIENT WORLD.—(3). *Prerequisite:* Sophomore standing.

MATHEMATICS

1. SOLID GEOMETRY.—(3). *Prerequisite:* Entrance algebra, 1 unit; plane geometry, 1 unit.
2. COLLEGE ALGEBRA.—(3). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
3. ALGEBRA.—(5). *Prerequisite:* Entrance algebra, 1 unit; plane geometry, 1 unit.
4. PLANE TRIGONOMETRY.—(2). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units or concurrent registration in Mathematics 3.
- 4a. ELEMENTS OF ALGEBRA AND TRIGONOMETRY.—(3). *Prerequisite:* High school algebra, 1 unit.
5. ADVANCED TRIGONOMETRY.—(2). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 4 or entrance trigonometry ($\frac{1}{2}$ unit) provided the student can pass placement test to be given in the first two class meetings.
- 6a. ANALYTIC GEOMETRY.—(4). *Prerequisite:* Mathematics 2 or 3 and Mathematics 4 or 5.
7. CALCULUS.—(5). *Prerequisite:* Mathematics 6a.
9. CALCULUS.—(3). *Prerequisite:* Mathematics 7.



PHILOSOPHY

1. INTRODUCTION TO PHILOSOPHY.—(3). *Prerequisite:* Sophomore standing.
2. LOGIC.—(3). *Prerequisite:* Sophomore standing.

PHYSIOLOGY

1. MAMMALIAN PHYSIOLOGY.—(3).

POLITICAL SCIENCE

- 1a. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS.—(3). *Prerequisite:* Sophomore standing.
16. GOVERNMENT IN ILLINOIS.—(2). *Prerequisite:* Sophomore standing.

PSYCHOLOGY

1. INTRODUCTION TO PSYCHOLOGY.—(4). *Prerequisite:* Sophomore standing.
2. FIELDS OF PSYCHOLOGY.—(4). *Prerequisite:* Psychology 1.

SOCIOLOGY

1. PRINCIPLES OF SOCIOLOGY.—(3). *Prerequisite:* Sophomore standing.
2. SOCIAL FACTORS IN PERSONALITY.—(3). *Prerequisite:* Sociology 1.

SPANISH

- 1a. ELEMENTARY SPANISH.—(4).
- 1b. ELEMENTARY SPANISH (CONTINUED).—(4). *Prerequisite:* Spanish 1a or one year of high school Spanish.
- 2a. MODERN SPANISH.—(4). *Prerequisite:* Spanish 1b or two years of high school Spanish.
- 2b. MODERN SPANISH (CONTINUED).—(4). *Prerequisite:* Spanish 2a or three years of high school Spanish.
- 3a. INTRODUCTION TO SPANISH LITERATURE.—(3). *Prerequisite:* Spanish 2b or four years of high school Spanish.

ZOOLOGY

1. GENERAL ZOOLOGY.—(5).
2. COMPARATIVE VERTEBRATE ANATOMY.—(5). *Prerequisite:* Zoology 1.



COLLEGE OF ENGINEERING

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce and government, the College of Engineering provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds. The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. Thus training for the practice of engineering as a profession is supplemented by an understanding of human relationships, and appreciation of economic factors in industrial and public works enterprises, and an insight into regional and national problems of production and distribution of goods.

At the Undergraduate Division in Chicago the first two years of courses in the following fields will be offered: aeronautical engineering; civil engineering; electrical engineering; mechanical engineering; mining and metallurgical engineering and engineering physics.

Courses to be offered at the Undergraduate Division in Chicago:

ARCHITECTURE

13. ARCHITECTURE AND CIVILIZATION OF THE NEAR ORIENT.—(2).* *Prerequisite:* Architecture 31 or 32.
14. ARCHITECTURE AND CIVILIZATION OF GREECE AND ROME.—(2). *Prerequisite:* Architecture 13.
31. ARCHITECTURAL DESIGN.—(3).
32. ARCHITECTURAL DESIGN (CONTINUED).—(3). *Prerequisite:* Architecture 31.
33. ARCHITECTURAL DESIGN.—(3). *Prerequisite:* Architecture 32.
34. ARCHITECTURAL DESIGN (CONTINUED).—(3). *Prerequisite:* Architecture 33.
43. MATERIALS AND METHODS OF CONSTRUCTION.—(3). *Prerequisite:* Architecture 32.
44. MATERIALS AND METHODS OF CONSTRUCTION.—(3). *Prerequisite:* Architecture 43 or consent of instructor.

ART

- 21a. FREEHAND DRAWING.—(2).
- 21b. FREEHAND DRAWING (CONTINUED).—(2). *Prerequisite:* Art 21a.
- 22a. FREEHAND DRAWING.—(2). *Prerequisite:* Art 21b.
- 22b. FREEHAND DRAWING (CONTINUED).—(2). *Prerequisite:* Art 22a.

CIVIL ENGINEERING

60. BRIDGE AND BUILDING CONSTRUCTION.—(3). *Prerequisite:* Sophomore standing.

ELECTRICAL ENGINEERING

14. WIRING AND ILLUMINATION.—(3). *Prerequisite:* Sophomore standing.

* Figures in parenthesis indicate number of credit hours offered for the course.

GENERAL ENGINEERING DRAWING

1. ELEMENTS OF DRAWING.—(4). *Prerequisite:* Plane geometry (1 unit).
2. DESCRIPTIVE GEOMETRY.—(4). *Prerequisite:* Plane and solid geometry (1½ units).
3. AIRCRAFT DRAFTING AND LOFTING.—(2). *Prerequisite:* General Engineering Drawing 1 and 2.
6. ELEMENTS OF DRAWING.—(3). *Prerequisite:* Plane geometry (1 unit).
7. ARCHITECTURAL PROJECTIONS.—(2). *Prerequisite:* Plane and solid geometry (1½ units).
8. ARCHITECTURAL PROJECTIONS (CONTINUED).—(2). *Prerequisite:* General Engineering Drawing 7.
10. PICTORIAL DRAWING.—(3 or 4). *Prerequisite:* General Engineering Drawing 1; Mathematics 6a.
12. GRAPHICAL CALCULATIONS.—(1). *Prerequisite:* General Engineering Drawing 1; Mathematics 6a.

MECHANICAL ENGINEERING

85. PATTERN AND FOUNDRY LABORATORY.—(3). *Prerequisite:* Sophomore standing; General Engineering Drawing 1.
87. MACHINE TOOL LABORATORY.—(3). *Prerequisite:* Sophomore standing.

PHYSICS

- 1a. GENERAL PHYSICS (MECHANICS, SOUND AND HEAT).—(4). *Prerequisite:* Mathematics 2 and 4; concurrent registration in Physics 3a.
- 1b. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT).—(4). *Prerequisite:* Physics 1a; registration in Physics 3b.
- 3a. GENERAL PHYSICS LABORATORY.—(1). *Prerequisite:* Concurrent registration in Physics 1a.
- 3b. GENERAL PHYSICS LABORATORY.—(1). *Prerequisite:* Concurrent registration in Physics 1b.

THEORETICAL AND APPLIED MECHANICS

1. ANALYTICAL MECHANICS (STATICS).—(2). *Prerequisite:* Mathematics 7; concurrent registration in Mathematics 9.
2. ANALYTICAL MECHANICS (DYNAMICS).—(3). *Prerequisite:* Theoretical and Applied Mechanics 1.
17. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS.—(3). *Prerequisite:* Mathematics 6a.
18. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS (CONTINUED).—(3). *Prerequisite:* Theoretical and Applied Mechanics 17.

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

THROUGH KNOWLEDGE OF MODERN BUSINESS PRACTICES and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for underclassmen. Though the factual contents of many of the courses are directly useful in specific vocations — accounting, banking, selling, teaching — students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Many of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University.

Courses to be offered at the Undergraduate Division in Chicago:

ACCOUNTANCY

- 1a. PRINCIPLES OF ACCOUNTING.—(3).*
- 1e. PRINCIPLES OF ACCOUNTING.—(2). One unit of entrance credit in bookkeeping.
- 1b. ACCOUNTING PROCEDURE.—(3). *Prerequisite:* Accountancy 1a or 1e.
- 2a. ELEMENTARY COST ACCOUNTING.—(3). *Prerequisite:* Accountancy 1b; registration or credit in Economics 1 or 2.
- 2b. INTERMEDIATE ACCOUNTING.—(3). *Prerequisite:* Accounting 2a.

ECONOMICS

- 1. PRINCIPLES OF ECONOMICS.—(5). *Prerequisite:* One year of university work.
- 2. ELEMENTS OF ECONOMICS.—(3). For non-commerce students. *Prerequisite:* One year of university work.
- 22. ECONOMIC HISTORY OF THE UNITED STATES.—(3). Open to freshmen only.
- 27. INTRODUCTION TO BUSINESS.—(3). Open to freshmen who have had one semester of university work.
- 70. ELEMENTS OF STATISTICS.—(3). *Prerequisite:* Economics 1 or 2; sophomore standing.

* Figures in parenthesis indicate number of credit hours offered for the course.

PHYSICAL EDUCATION

ALL STUDENTS, except veterans who have fulfilled the four-hour physical education requirement while in the service, are required to take physical education each semester until four credit hours have been earned. Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce and Business Administration.

Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses where they are given individualized programs. Students with low scores in motor fitness are assigned to courses designed to develop strength, skill, and stamina.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. Men are offered classes in basic physical fitness, wrestling, handball, volleyball, badminton, tumbling, apparatus, boxing, personal defense, weight lifting and adapted sports. Women are offered classes in square dancing, volleyball, rhythms, basketball, badminton, and gymnastics.

All general courses in physical education will meet three times (for 1 hour) per week or two times (for 2 hours) per week. All general courses in physical education carry one hour of credit.

PROFICIENCY EXAMINATIONS

Proficiency examinations, similar to the regular semester examinations, will be given each semester. Time and place of the examinations are set by the individual departments. There is no fee charged for these examinations.

A student who passes a proficiency examination is given credit toward graduation provided that this does not duplicate credit counted for his admission to the University and that the course is acceptable in his curriculum. The grade in proficiency examinations is "pass" or "not pass," but no student is given the grade of "pass" unless he has made at least "C" in the examination.

DIVISION OF SPECIAL SERVICES FOR WAR VETERANS

THE UNIVERSITY established the Division of Special Services for War Veterans as an agency with one chief function—to assist the veteran in returning to civilian life. To perform this function adequately, the Division offers its help both to those who are now veterans and to those who are still in the services.

The Division can supply information about the various services of the University. It can give advice on matters of educational aids and adjustments. It can help the veteran to secure those benefits to which he is entitled by directing him to the sources of such benefits and assisting him in finding the proper procedures to be followed to obtain them with the least delay.

The Division can help the veterans to find in the curricula now offered by the schools and colleges of the University the programs which they need and want. It will assist them in obtaining such needed or desirable revisions of existing programs as can be agreed to by the college administering these programs. The Division will furthermore assist them in obtaining consideration when faced with requirements which their period in service has made unduly difficult or impossible for them to meet.

For those veterans whose needs cannot be met by the established curricula, the Division will arrange and direct educational programs equivalent in quantity and quality to the traditional curricula but especially planned to meet the individual needs and interests of the veteran. After successfully completing such a program at Navy Pier the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

All of the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to Warren O. Brown, Navy Pier, Chicago, Illinois.

VETERANS' REGISTRATION INFORMATION

All veterans who are planning to attend the University of Illinois, Navy Pier, under the G. I. Bill are urged to make application through the Veterans Administration for a Certificate of Eligibility and Entitlement unless one has previously been issued.

The presentation of a Certificate of Eligibility and Entitlement will enable veterans to register and to receive books and supplies under the G. I. Bill. With this Certificate the only fee charged in cash will be the General Deposit fee required of all students. Without this Certificate, veterans will be responsible for their own tuition fees and books. A rebate will be made when the Certificate is secured. This Certificate is also necessary in order to receive monthly subsistence payments for veterans in training under the G. I. Bill.

Application for a Certificate of Eligibility should be made at once to the office of the Veterans Administration, 366 W. Adams, Chicago. Service records showing separation from the armed forces or terminal leave orders and

AGO Form 100 or NAVPERS 554 should be presented to the Veterans Administration since evidence of discharge from service is required at the time the application is filed.

Certificates of Eligibility will be accepted by the Division of Special Services for War Veterans in the Registrar's Office.

Veterans who have previously used a Certificate of Eligibility under the G. I. Bill, or a Letter of Authorization under the Vocational Rehabilitation Act, should make arrangements at the office of the Veterans Administration to be issued revised authorizations to be presented at Navy Pier.

Students receiving educational benefits under the Vocational Rehabilitation Act should be certain that there is an authorization for their training on file at the University by the time they are to register.

An authorization under which veterans may receive books and supplies will be available to veterans. This form will be issued at the time of registration provided that a Certificate of Eligibility or an authorization for Vocation Rehabilitation training is on file in the Division of Special Services.

FEES

The Chicago Undergraduate Division At Navy Pier

MATRICULATION FEE—Each student not holding a scholarship, on satisfying the requirements for admission to the University, pays the matriculation fee of.....\$10.00

TUITION FEE—All state residents, except those holding scholarships, pay each semester a tuition fee of.....\$40.00

Students not residents of Illinois pay each semester a tuition fee of...\$80.00

HOSPITAL AND MEDICAL SERVICE FEE—All students, except students taking not more than five hours of undergraduate work in a semester, pay each semester as insurance for hospital and medical service, a fee of.....\$ 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—Students taking more than eight hours pay each semester a laboratory, library, and supply fee of.....\$ 5.00

(Students taking less than eight hours pay \$2.50 each semester)

DEPOSITS—Each student, at the time of his first registration, must make a deposit of \$5, against which such items as unreturned towels and locks, lost library books, library fines, and shortages in laboratory equipment are charged. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately by additional deposit to bring the total up to \$5. Any balance in deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, lockers, towels, and other equipment.

STUDENT WELFARE

THE DEAN OF STUDENTS

The Dean of Students is responsible for student life and welfare outside of the classroom. He is charged with the direction, supervision, and coordination of numerous offices and agencies which work in the field of student life, and which are active in the guidance of students in non-academic activities which contribute to the best conditions for academic success. Offices and functions included within the Dean of Students' organization are: the Dean of Men, the Dean of Women, the Student Employment Office, the University Health Service, hospital and medical service benefits, and the required work in physical education.

The Dean of Students will also be in charge of student social and cultural activities, both on Navy Pier and in cooperation with the cultural and other agencies in the City of Chicago. The Dean of Students, E. A. Wolleson, is available for individual conferences.

THE DEAN OF MEN

The Office of the Dean of Men is organized for the purpose of aiding men students. The Dean not only gives advice and guidance, but also directs students to other administrative offices of the University which are organized to deal specifically with various matters of student welfare. The work of the Dean of Men is in counseling students and in advising them on any matters which they wish to present to him. He is well informed on matters having to do with registration and the many perplexing problems which confront the new student. New students are urged to come to the Office of the Dean of Men as soon as they arrive at the Pier.

THE DEAN OF WOMEN

The Office of the Dean of Women is the clearing place for the problems of undergraduate women. Students are urged to come with questions that inevitably arise — social, academic, or financial. In addition to the daily counseling of individuals, the Office of the Dean of Women sponsors many of the organizations for women students. The Dean of Women will also direct student social and cultural activities at the Pier.

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, a limited number of part-time jobs will be available in various University offices and departments. Students will be paid at an hourly rate. The University maintains, in the Office of the Dean of Students, a Student Employment Division to assist students with contacts for employment, both in connection with the University and with industry and business establishments in the City of Chicago.

The student who expects to be employed should arrange his class schedule and study hours for employment, or see the type of employment which is suited to his scholastic program. Freshmen in curricula for which laboratory periods occupy most day hours between eight in the morning and five in the afternoon generally find food-service work done at meal hours the most convenient and most time-conserving. Students in other curricula may improve their employment opportunities at the time they register by arranging class schedules which leave consecutive hours free each day.

SCHOLARSHIPS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition and matriculation fees include: County Scholarships (awarded on competitive examination); General Assembly Scholarships (awarded on nomination of members of the General Assembly); University Scholarships (awarded by the University Committee on the basis of scholarship and need); Military Scholarships (for veterans who were Illinois residents or University students when they enlisted).

Cash scholarship awards in varying amounts are made to the applicants on the basis of scholastic promise and need by the Committee on Undergraduate Scholarships from funds donated by individuals and organizations.

STUDENT LOAN FUNDS

LOAN FUNDS are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. The emergency funds are for small loans to be made on short notice, and to be repaid within a short time. The regular funds are for larger loans, and may be carried for a longer time.

Most of these different funds have special qualifications which must be met by applicants, such as funds for students in certain curricula, of high scholastic standing, or to overseas veterans. Good scholarship, as well as the need of the individual, is a general qualification in all cases. Loans are not ordinarily made to students during their first year in the University or until they have demonstrated their ability. More detailed information regarding loan funds may be obtained from the Office of the Dean of Students, Navy Pier.

STUDENT PERSONNEL BUREAU

AS ONE OF ITS SERVICES to students throughout the State, the University offers, through its Student Personnel Bureau, a complete aptitude testing and counseling service. The Personnel Bureau's staff of experienced counselors can help you discover the answers to questions about your general fitness for specific courses of study; the kind of work in which you have a good chance to succeed; the measures you can take to increase your efficiency as a student — in reading rapidly and understandingly, in increasing your powers of concentration. It can help you, also, in developing a personality that will be an asset to you in school and in the years that follow your work here.

Since an objective discussion of your abilities, interests, educational background, and personal situation can be of great help to you in making your decision as to your course of study, it is highly desirable that you avail yourself of these services some time previous to your actual registration in the University if possible.

As a student at the University of Illinois at Navy Pier the testing and counseling services of the Student Personnel Bureau will be available to you at all times. Whenever you wish to talk over any educational, vocational, or personal problem, simply drop in at the Bureau and ask for an appointment with one of the counselors.

The Student Personnel Bureau is located on the third floor at the extreme east end of the Pier.

HEALTH SERVICE

THE UNIVERSITY maintains a health service for students to promote their physical and mental health, to control communicable disease among them, and to teach them the essentials of healthful living. Members of its staff give instruction in hygiene, conduct physical examinations, supervise food handlers, make sanitary inspections, hold personal conferences with students, and assist them in every way possible in making prompt adjustment. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and referral to competent specialists and practitioners of medicine.

The health service station is located on the third floor at the extreme east end of the Pier.

The Hospital and Medical Service fee paid at the time of registration provides ward care in any hospital for a period not to exceed twenty-eight days in any semester. In addition, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anaesthetic or administration thereof, use of operating rooms, medicine, drugs and dressings.

LIBRARY

THE LIBRARY at Navy Pier is a branch of the 2,000,000 volume library on the Urbana campus. The library, located on the second floor at the extreme east end of the Pier, contains over 10,000 volumes. Books and periodicals adequate to cover reading requirements in all courses offered at the Pier may be found there.

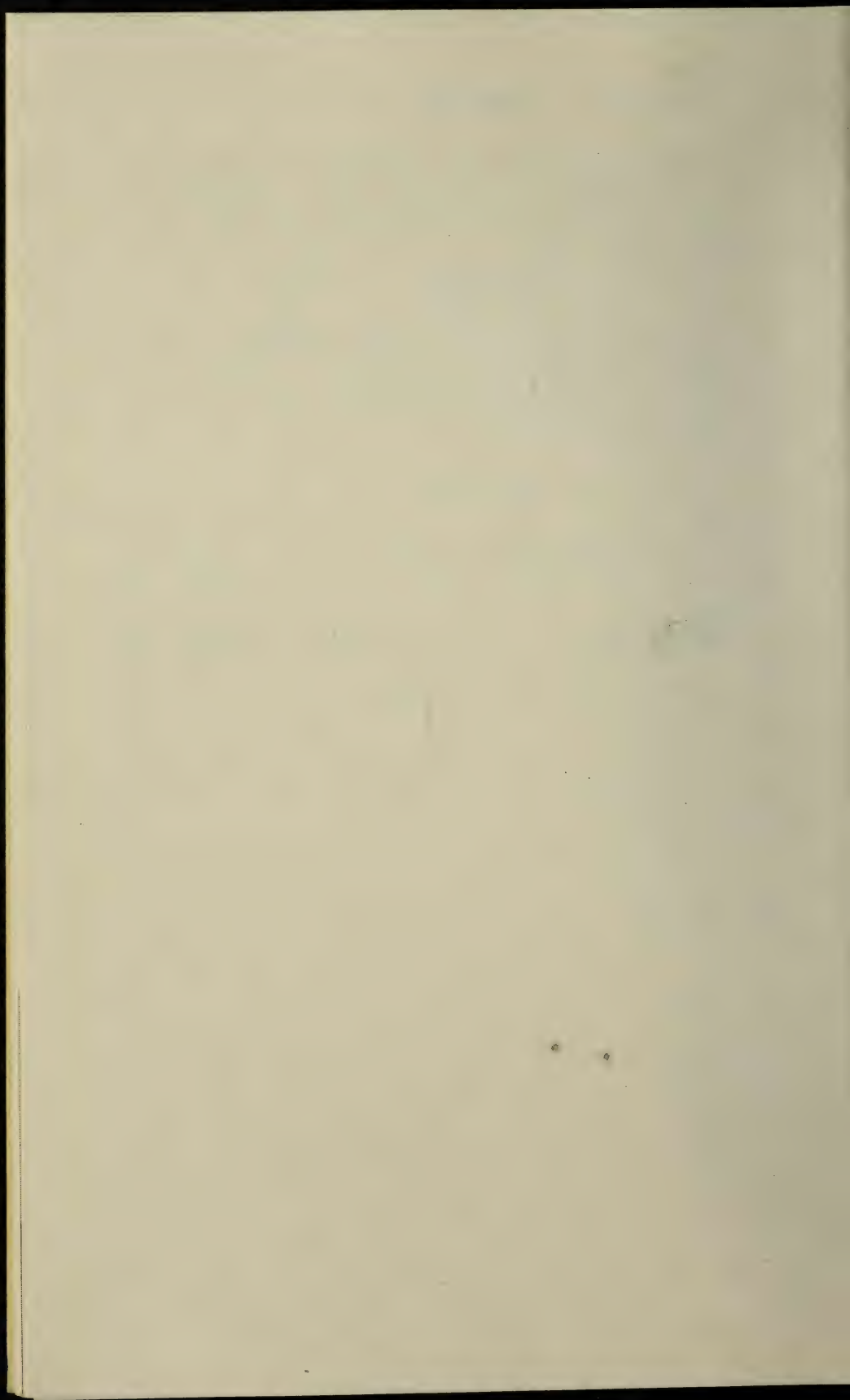
LOUNGES

STUDENT RECREATION LOUNGES are located throughout Navy Pier. A large reception lounge is located on the first floor at the entrance to the Pier. Additional lounges are situated on the third floor at the extreme east end of the Pier. These lounges are open daily during class hours for student recreation and reading.

CAFETERIA

IN VIEW of the lack of adequate eating facilities in the immediate vicinity of Navy Pier, the University has set up a cafeteria to provide one-menu, moderately-priced lunches for students and staff. The cafeteria will also serve light breakfasts.

The cafeteria, located on the first floor at the east end of the Pier, will seat approximately 1,100 persons. A dining room for faculty and staff will seat 125. It is planned to serve at least 3,500 lunches daily. In addition, the University will operate three lunch counters, located at convenient points on the Pier.



UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

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NAVY PIER

CATALOG AND HANDBOOK

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UNIVERSITY OF ILLINOIS





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Charles C. Caveny
Dean

FOREWORD

THE CHICAGO UNDERGRADUATE DIVISION of the University of Illinois was established at Navy Pier as part of the program of the State to meet its share of the national emergency in higher education resulting from the overwhelmingly increased demand, primarily by veterans, for instruction at the University level.

Courses at the freshman and sophomore levels are offered in the College of Liberal Arts and Sciences, the College of Commerce, and the College of Engineering. In addition, architecture and architectural engineering curricula are offered in the College of Fine and Applied Arts.

The program has been organized to provide for 4,000 students. Students who are residents of the State of Illinois are given preference. Courses are identical with those made available in similar fields of undergraduate work on the Urbana campus. Suitable adjustments will be made in the academic program to provide facilities of a semi-professional and technical nature for those students who are qualified to succeed in a terminal program rather than one designed for further studies at the college level.

Every effort is being made to integrate the instructional program with the cultural resources of the City of Chicago so as to provide a superior educational unit. The University, as a public institution, desires that every enrollee shall have the best possible opportunity to develop his individual capacities to their fullest degree.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University's tradition.

CHARLES C. CAVENY
Dean

ADMINISTRATIVE OFFICERS

Chicago Undergraduate Division

NAVY PIER

CHARLES C. CAVENY.....	Dean
ROBERT F. WILSON.....	Assistant to the Dean
HAROLD W. BAILEY.....	Associate Dean College of Liberal Arts and Sciences
ROBERT P. HACKETT.....	Associate Dean College of Commerce and Business Administration
RANDOLPH P. HOELSCHER.....	Associate Dean College of Engineering
JOHN O. JONES.....	Director Physical Education
WARREN O. BROWN.....	Director Division of Special Services for War Veterans
EDWIN A. WOLLESON.....	Dean of Students
WARREN O. BROWN.....	Acting Dean of Men
RUTH E. LEITCH.....	Dean of Women
DR. EARL B. ERSKINE.....	Director Health Service
PAUL C. GREENE.....	Director Student Personnel Bureau
DAVID K. MAXFIELD.....	Librarian
HAROLD E. TEMMER.....	Examiner and Recorder
WILLIAM R. WILLIAMS.....	Assistant to the Business Manager
HOWARD I. SCHMITT.....	Assistant Superintendent, Building and Grounds
ROBERT E. KNOX.....	Manager Nonacademic Personnel
JEAN HURT.....	Manager Public Information

GENERAL REQUIREMENTS FOR ADMISSION

Application—To be considered for admission to the Chicago Undergraduate Division, prospective students should have all official high school and college transcripts sent directly to the Registrar's Office, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.

High school seniors, after the middle of their eighth semester, should request their high schools to forward transcripts of work taken during the first seven semesters and supplementary transcripts showing courses in progress, expected grade, and rank in graduating class to the Registrar's Office.

Age—An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian or with someone selected by them.

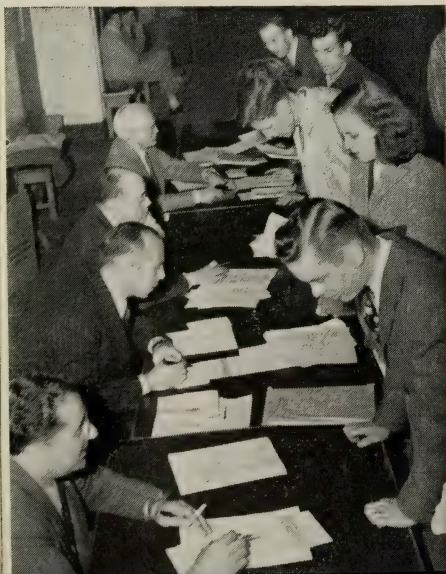
High School Graduation—To be admitted by certificate, an applicant must be a graduate of an accredited secondary school. However, an applicant who is a high school senior, who meets the age requirement, and who ranks in the upper twenty-five per cent of his class, may be admitted to the University under the following conditions:

1. He must be recommended for admission by a committee of his high school faculty, consisting of the principal and at least three teachers, one of whom shall be a pupil counselor if the school has in operation an organized guidance program.

2. He must have completed not fewer than 14 units acceptable toward admission (10 units in a three-year senior high school), including all subjects prescribed for admission to the particular curriculum in which he wishes to enroll.

3. He must demonstrate that he possesses the intellectual ability, social maturity, and emotional stability essential to success in college by passing satisfactorily such tests as may be prescribed and administered by the Student Personnel Bureau of the University of Illinois. In general, a rank below the 75th percentile on University of Illinois norms in these tests will be cause for denial of admission. If the applicant has taken the tests given in many high schools through the Illinois High School Testing Program, the results of those tests will be considered along with the results of tests given by the Student Personnel Bureau.

Registration Day Advisers



High School Scholarship—An applicant for admission to the University whose rank in scholarship is in the upper three-quarters of his graduating class and who meets the requirements as stated below is admitted by certificate to full freshman standing. Furthermore, the Registrar is authorized to admit, without adhering to the usual requirements as they pertain to majors and minors, an applicant whose rank in scholarship is in the upper fifty per cent of his graduating class. Such a student, however, must present those specific high school courses that are prerequisite to courses in the curriculum which he desires to follow in the University.

A graduate of an accredited high school whose rank in scholarship is in the lowest

quarter of his graduating class and who meets the requirements as stated below is admitted by certificate to probationary status and, in connection with his first registration in the University, is required to take such tests as may be prescribed by the Student Personnel Bureau. Such a student, immediately upon registration, is placed under the special supervision of the dean of the college in which he is enrolled. He may be required by the dean or director to carry a reduced program of work or a program especially arranged to meet his needs.

Graduates of Unaccredited Secondary Schools—The Registrar is authorized to admit a student who is a graduate of an unaccredited secondary school and whose general scholarship rank is in the upper twenty-five per cent of his graduating class, subject to his passing examinations at the University in advance of admission in: (1) English composition and rhetoric; and (2) other high school subjects necessary to complete the requirements.

DEFINITIONS

A *unit* in the secondary school is a course covering an academic year and including not less than the equivalent of 120 clock hours of classroom work.

A *major* is three unit courses in one field.

A *minor* is two unit courses in one field.

Fifteen units of acceptable secondary school work are required, including:

(A) Two majors and one minor, selected from Groups 1-5 on page 11. *One of the majors must be English.*

(B) A total of at least nine units from the fields of English, foreign language, mathematics, science, and social studies, including preparation amounting to a major or minor sequence in at least three different fields.

(C) All subjects required for the curriculum which the applicant desires to enter. (See table on page 10.)

(D) Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards. Fractional credits of less than one-half will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

Students Paying Fees, Registration Day



REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects Required</i>	<i>Subjects Recommended</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, Entomology, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾</p>	<p>Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine.⁽⁴⁾</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Mathematics, 3 units, instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1½ units Geometry, 1 unit</p>	<p>Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p style="text-align: center;">COLLEGE OF COMMERCE</p> <p>All fields (Accountancy, Banking and Finance, Commerce and Law, Economics).</p>	<p>English, 3 units⁽¹⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Advanced algebra, 1½ units. Science, 2 units (including 1 unit with laboratory).</p>
<p style="text-align: center;">COLLEGE OF ENGINEERING</p> <p>All Curricula (Aeronautical, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).</p> <p>Curricula in Architecture and Architectural Engineering.</p>	<p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Plane Geometry, 1 unit Solid Geometry, ½ unit⁽³⁾</p> <p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Geometry, 1 unit Solid Geometry, ½ unit⁽³⁾</p>	<p>Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.</p> <p>Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economics and history).</p>

(1), (2), (3), (4) See page 11 for additional description.

MAJORS AND MINORS

The required majors and minors defined on page 9 may be selected from the following five groups: (1) English—(In all cases one major must be in English.) Only courses in history and appreciation of literature, composition (including oral composition as a part of a basic English course), and grammar will count toward a major. (2) Foreign Language—Three units in one language constitute a major. Two units in one language constitute a minor. (3) Mathematics—Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases where the content of the course is essentially the same as that ordinarily included in algebra and geometry.) (4) Science—(Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology.) The three units required for a major must include at least one unit from the above subjects. (5) Social Studies—(Including history, civics, economics, commercial or economic geography, and sociology.) The three units required for a major must include at least two units in history. The two required for a minor must include at least one unit in history.

(1) ENGLISH

Only courses in history and appreciation of literature, and in composition (including oral composition as a part of a basic English course), and grammar, will count toward the three units in English required as a major for admission to all curricula. Four units in English, while not required for any curriculum, are recommended by all the colleges and schools.

(2) LANGUAGE

The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, Spanish, Italian, Latin, Greek. For some curricula three units in one language are recommended, and for some it is advantageous to have four units in one language or a combination of languages. Less than one unit in a language is not acceptable for admission.

(3) MATHEMATICS

In Engineering or Architecture where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence. Where one unit in algebra and one unit in geometry are required for admission, general mathematics will be accepted if the content of the course is essentially the same as that ordinarily included in algebra and plane geometry. For all curricula involving chemistry (to which one unit in physics or chemistry or $2\frac{1}{2}$ units in mathematics are prerequisite), students without credit in physics or chemistry who have only two units in mathematics will be required to take college algebra.

(4) PRE-MEDICAL REQUIREMENT

A student entering the pre-medical curriculum as a freshman must have a scholarship rank in the upper half of his high school graduating class. A student transferring to this curriculum from another college or university must have a scholastic average in his collegiate work not less than 3.5 in terms of the grading system of the University of Illinois.

VETERANS' REGISTRATION INFORMATION

Veterans may enter the University in any of the colleges for which they have the essential prerequisites. They may qualify for admission under the entrance requirements described on pages 10 and 11 or on the basis of previous work in college, graduation from high school, the passing of examinations, or other satisfactory demonstration of ability to carry college work.

All high school and college credentials should be sent to the Registrar's Office, Chicago Undergraduate Division, Navy Pier, for evaluation. Honorable discharge papers and credentials showing special training courses completed in the armed services should be presented to the Registrar's Office to determine what credit, if any, may be allowed.

All veterans planning to attend the Chicago Undergraduate Division under the G.I. Bill must make application through the Veterans Administration for a Certificate of Eligibility and Entitlement unless one has previously been issued.

The presentation of a Certificate of Eligibility and Entitlement will enable veterans to register and to receive books and supplies under the G.I. Bill. With this Certificate the only fee charged in cash will be the General Deposit fee required of all students. Without this Certificate, veterans will be responsible for their own tuition fees and books. A rebate will be made when the Certificate is secured. This Certificate is also necessary in order to receive monthly subsistence payments for veterans in training under the G.I. Bill.

Application for a Certificate of Eligibility should be made to the office of the Veterans Administration, 366 W. Adams St., Chicago. Service records showing separation from the armed forces or terminal leave orders and AGO Form 100 or NAVPERS 554 should be presented to the Veterans Administration, since evidence of discharge from service is required at the time application is filed.

Upon receiving a permit to enter the Chicago Undergraduate Division, veterans should submit Certificates of Eligibility to Miss Ruth M. Farnham, Veterans' Benefits Administrator, Division of Special Services for War Veterans, Room 15, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.

Veterans who have previously used a Certificate of Eligibility under the G.I. Bill, or a Letter of Authorization under the Vocational Rehabilitation Act, should make arrangements at the office of the Veterans Administration to be issued revised authorizations to be presented to the Chicago Undergraduate Division. Temporary revised Certificates of Eligibility are acceptable pending receipt of the regular revised form.

Students transferring to the Chicago Undergraduate Division from the Urbana campus or the Galesburg campus are responsible for requesting a transfer of their Certificates of Eligibility to Navy Pier. Certificates of Eligibility are *not* transferred with academic records.

To request a transfer of Certificates, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration (W), University of

Illinois, Urbana, Illinois; or Mr. C. R. Wayman, Division of Special Services for War Veterans, Galesburg Undergraduate Division, Galesburg, Illinois.

Students receiving educational benefits under the Vocational Rehabilitation Act should be certain that there is an authorization for their training on file at the University by the time they are to register.

An authorization under which veterans may receive books and supplies is available to veterans. This form is issued following registration, provided that a Certificate of Eligibility or an authorization for Vocational Rehabilitation training is on file in the Division of Special Services for War Veterans.

FEEs

Chicago Undergraduate Division

MATRICULATION FEE—Each student not holding a scholarship, on satisfying the requirements for admission to the University, pays the matriculation fee of.....\$10.00

TUITION FEE—All state residents, except those holding scholarships, pay each semester a tuition fee of.....\$40.00

Students not residents of Illinois pay each semester a tuition fee of..\$80.00

HOSPITAL AND MEDICAL SERVICE FEE—All students, except those taking not more than five hours of undergraduate work in a semester, pay each semester as insurance for hospital and medical service, fee of.....\$ 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—Students taking more than eight hours pay each semester a laboratory, library, and supply fee of.....\$ 5.00

(Students taking less than eight hours pay \$2.50 each semester)

STUDENT ACTIVITY SERVICE CHARGE.....\$ 2.00

DEPOSITS—Each student, at the time of his first registration, must make a deposit of \$5, against which such items as unreturned towels and locks, lost library books, library fines, and shortages in laboratory equipment are charged. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately by additional deposit to bring the total up to \$5. Any balance in deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, lockers, towels, and other equipment.



Harold W. Bailey
Associate Dean

COLLEGE OF LIBERAL ARTS AND SCIENCES

THE GENERAL CURRICULUM in the College of Liberal Arts and Sciences offered at the Chicago Undergraduate Division is aimed at giving the student a well-balanced intellectual development. It provides the resources for a liberal education, which emphasizes subjects leading to a general knowledge and interpretation of the cultures of both the past and present. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Students in this curriculum are encouraged to develop interest and talent supplementing their major subjects.

The first two years of undergraduate work are offered in the following fields: Pre-teacher training; Pre-law; Pre-journalism; Chemistry and Chemical Engineering; Pre-medicine; and Pre-dentistry.

GENERAL CURRICULUM IN LIBERAL ARTS AND SCIENCES

For the Degree of Bachelor of Arts (or Bachelor of Science)

Because of the wide range of courses open to students in the general curriculum of Liberal Arts and Sciences, it is not feasible to specify the definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of advisers, each student is expected to plan his own program within the general requirements outlined below. This general outline indicates the ordinary procedure in fulfilling the requirements for the degree of Bachelor of Arts, or for the optional degree of Bachelor of Science.

Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the general University requirements with respect to registration, residence, fees, hygiene, military science, physical education, and rhetoric, and must obtain credit, with a satisfactory scholastic average, in approved courses totaling at least 120 semester hours, not counting credit earned for the first two years of work in military science and physical education. In securing this credit, each candidate must have an average of no less than "C" (3.) in all grades received, including grades in courses transferred from other institutions, and excluding those received in the first two years of work in military science and physical education, and must not have grades below "C" in more than one-fourth of the total number of semester hours earned. (*Note:* Grades in advanced military courses and in the addi-

tional physical education courses required of men are included in the average.) In computing the grade-point average, weighted values are given to the grades as follows: A = 5 grade points; B = 4; C = 3; D = 2; E (failure) = 1. The individual grades are multiplied by the respective number of semester hours which each represents and the sum of these products is divided by the total number of semester hours taken.

Optional Degree of Bachelor of Science.—The degree of Bachelor of Science, instead of the degree of Bachelor of Arts, is granted to students whose major is in mathematics, a science, or home economics, upon petition to the dean of this college not later than March 1 if the degree is to be received in June, August 1 if it is to be received in October, or December 1 if it is to be received in February.

A. Prescribed subjects:

To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirements are completed. (See group requirements below.)

1. *Hygiene.*—One semester. Credit may be obtained by a proficiency examination.
2. *Physical Education.*—Four semesters. (Men under 30 years of age are required to register each semester in physical education unless exempted by the Dean of the College or the Health Service.)
3. *Rhetoric.*—Two semesters (Rhetoric 1 and 2). The quality of work acceptable in the fulfillment of this requirement must satisfy the general University regulations concerning rhetoric.
4. *Foreign Language.*—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 2b, German 5 or 6, Greek 4, Italian 2b, Latin 1b, Portuguese 2b, Spanish 2b, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. *Note:* No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. (Students planning to enter the Graduate School are advised to obtain a reading knowledge of both French and German.)

In the Classroom



B. Group requirements:

To be begun in the freshman year and completed before the senior year. Proficiency examinations may be taken for credit in some of these subjects.

I. For students who entered prior to September 1, 1946:

1. *Liberal Arts*.—A total of 15 hours chosen from at least three of the following subjects, including one course in English or foreign literature, or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work, or its equivalent), economics, history, philosophy, political science, and sociology.
2. *Sciences*.—A total of 15 hours chosen from at least three of the following subjects, including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.

NOTE.—Any student who has completed the six courses prescribed by the Division of General Studies will have satisfied all the group requirements of the general curriculum in the College of Liberal Arts and Sciences.

II. For students who enter after September 1, 1946:

1. *Basic Knowledge*.—Students who enter the general curriculum in liberal arts and sciences as freshmen after September 1, 1946 (or who enter other schools after that date and subsequently transfer to the College), must, in addition to the present requirements in English, hygiene, and foreign language, meet new requirements of three hours in History of the United States, and six hours in mathematics. The new requirements may be satisfied by courses taken in high school.
2. *General Education*.—The present "group requirements" will be replaced by the requirement of a two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) Humanities; (b) Biological Science; (c) Physical Science; (d) Social Science.

Electives

1. *Liberal Arts and Sciences*.—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*.—Electives totaling as much as (but not more than) 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity to the following list approved by the faculty:

Accountancy.—A total of 6 hours (not including more than one of the following courses: Accountancy 1a, 1e, 12).

Agricultural Economics.—A total of 6 hours.

Architecture.—A total of 15 hours.

Art.—A total of 15 hours.

Business Law.—A total of 6 hours.

Business Organization and Operation.—A total of 6 hours. 12a-12b (Typewriting) and 13a-13b (Shorthand) may not be offered for credit.

Economics.—All courses.

Education.—A total of 20 hours.

Engineering.—A total of 10 hours in the College of Engineering.

Forestry.—3 hours.

Home Economics.—All courses.

Horticulture.—A total of 6 hours.

Hygiene.—Hygiene 2 or 5 (2 hours). Hygiene 8 is accepted in addition to the required two hours of credit.

Journalism.—A total of 10 hours.

Landscape Architecture.—A total of 7 hours.

Law.—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law provided that not less than two courses amounting to at least 5 hours a semester are taken, with the advice of the dean of the College of Law, and provided further that if any such student desires to take more than 6 hours of law work he must also register in the College of Law.

Library Science.—A total of 10 hours.

Military Science.—A total of 8 hours in advanced courses.

Music.—A total of 15 hours approved by the director of the School.

Physics.—All courses.

CHEMISTRY AND CHEMICAL ENGINEERING

The following curricula in chemistry and chemical engineering afford more specialized training than is required of students who make chemistry their major subject in the general curriculum of liberal arts and sciences.

The minimum language requirement for graduation in these curricula is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum. Students entering with two units of credit for German or French (two units in high school being equivalent to one year in college) should complete this minimum requirement in their freshman year. Those entering with less than two units in German or French should complete this requirement in their sophomore year or as early as possible.

Students in these curricula should note that registration in chemistry courses other than those open to freshmen and a few of those open to sophomores is restricted to students who have a grade-point average of 3.5.

CURRICULUM IN CHEMISTRY

For the Degree of Bachelor of Science in Chemistry

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 1 or 2—Inorganic Chemistry...	5	Chem. 6—Inorganic Chemistry.....	5
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Plane Trigonometry.....	2	German or French.....	4
German or French.....	4	Rhet. 2—Rhetoric and Composition...	3
Rhet. 1—Rhetoric and Composition...	3	Hygiene 2 or 5—Hygiene and Sanitation.....	2
Physical Education.....		Physical Education.....	
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 10—Qualitative Analysis.....	5	Chem. 24—Quantitative Analysis.....	5
Math. 8a—Differential Calculus.....	3	Math. 8b—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....		Physical Education.....	
Electives ¹	3	Electives ¹	2
<i>Total</i>	16	<i>Total</i>	15

¹ Suggested courses for electives are: Zoology 1, 2, 7; Botany 1a, 1b; English 20a, 20b; Geology 20, 43; History 3a, 3b; Bacteriology 5a, 5b; German or French. Of the total electives for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute courses in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

CURRICULUM IN CHEMICAL ENGINEERING

For the Degree of Bachelor of Science in Chemical Engineering

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 1 or 2—Inorganic Chemistry.....	5	Chem. 6—Inorganic Chemistry.....	5
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Plane Trigonometry.....	2	German or French.....	4
German or French.....	4	Rhet. 2—Rhetoric and Composition...	3
Rhet. 1—Rhetoric and Composition...	3	Hygiene 2 or 5—Hygiene and Sanita- tion.....	2
Physical Education.....	—	Physical Education.....	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 10—Qualitative Analysis.....	5	Chem. 24—Quantitative Analysis.....	5
Math. 8a—Differential Calculus.....	3	Math. 8b—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
G.E.D. 6—Elements of Drawing.....	3	T.A.M. 1—Analytical Mechanics.....	2
Physical Education.....	—	Physical Education.....	—
<i>Total</i>	16	<i>Total</i>	15

MEDICINE AND DENTISTRY

The pre-medical curriculum outlined below includes the first two years' work of the courses required for admission to the College of Medicine.

The work covered also enables students to meet the requirements for admission to the College of Dentistry.

Pre-Medical Curriculum

This curriculum, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

A student transferring to this college with advanced standing must have maintained at least a 3.5 scholastic average, in terms of the University's grading system, in order to be admitted to the pre-medical curriculum.

At the end of each semester the scholastic averages of all students enrolled in the pre-medical curriculum are computed. Students whose scholastic average at the time of computation is below the 3.5 average required for admission to the College of Medicine are denied further registration in this curriculum, until such a time as they may have improved their average to this minimum.

Students who meet the language and Liberal Arts group requirements and who complete three years of the pre-medical curriculum and the first year in the College of Medicine, receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences. No student may receive credit toward this degree for more than one year of work done in any other college or university.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Rhet. 1—Rhetoric and Composition...	3	Rhet. 2—Rhetoric and Composition...	3
Zool. 1—General Zoology.....	5	Zool. 2—Vertebrate Zoology.....	5
Chem. 1 or 2 ¹ —General Chem.....	5 or 3	Chem. 5—Inorganic Chemistry.....	5
Hygiene 2 or 5—Hygiene and Sanitation.....	2	Math. 4 or 4a ² —Trigonometry.....	2 or 3
Physical Education.....	0-3	Physical Education.....	0-3
Electives.....	0-3	Electives.....	0-3
<i>Total</i>	15-18	<i>Total</i>	15-18

Second Year

Phys. 7a and 8a—General Physics....	5	Phys. 7b and 8b—General Physics....	5
Modern Language ³	4	Modern Language ³	4
Chem. 22—Quantitative Analysis; <i>or</i>		Chem. 22—Quantitative Analysis; <i>or</i>	
Chem. 33—Organic Chemistry.....	5	Chem. 33—Organic Chemistry.....	5
Physical Education.....	2-4	Physical Education.....	2-4
Electives ⁴	2-4	Electives ⁴	2-4
<i>Total</i>	16-18	<i>Total</i>	16-18

TEACHER TRAINING CURRICULA

Of the curricula in teacher training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division, as follows: Biology, Chemistry, English, French, Geography, German, Mathematics, Mathematics and Physical Sciences, Physics, Social Studies, Spanish, and Speech. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

Prospective students in teacher training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

¹ Students having credit for chemistry in high school will register for Chemistry 2 (three hours).

² Mathematics 4, Trigonometry, which is a prerequisite for physics in the sophomore year, may be taken in either the first or second semester of the freshman year, or may be replaced by an elective if the student has credit for trigonometry in high school. Mathematics 4a (three hours) will be substituted by students who have only two units of mathematics in high school.

³ German, French, Spanish, etc. Two semesters of a modern language at the college level are required for admission to the medical school. The equivalent of two years of college work in a foreign language is required of students who are candidates for the bachelor's degree in the combined curriculum. (See Prescribed Subjects, Item 4, page 15.)

⁴ Electives in the second and third years should be arranged to satisfy the requirements for admission to the medical school which the student expects to enter. The College of Medicine of the University of Illinois requires fourteen semester hours from at least two of the following: economics, history, philosophy, political science, psychology, sociology.

COURSES OF INSTRUCTION

(The credit value of each course is given in parenthesis after the title of the course.)

BACTERIOLOGY

- 5a. **INTRODUCTORY BACTERIOLOGY.**—(3). Bacteria, yeasts, and molds; structure morphology, and systematic relationships; general sanitation, communicable diseases, etc. Designed to accompany Bacteriology 5b, but may be elected without it. *Prerequisite:* Sophomore standing or consent of instructor.
- 5b. **INTRODUCTORY BACTERIOLOGY LABORATORY.**—(2). Morphology and physiology of bacteria and related microorganisms, preparation of media and apparatus, staining, cultivation. Designed to accompany Bacteriology 5a. *Prerequisite:* Bacteriology 5a, or concurrent registration therein.

BOTANY

- 1a. **INTRODUCTORY BOTANY.**—(3). Relation of the plant world to the physical and animal worlds; progressive development of the plant and its evolutionary significance; its part in the formation of soils, the production of food and the maintenance of life. Lectures and demonstrational quiz. Designed to accompany Botany 1b, but may be elected without it.
- 1b. **INTRODUCTORY BOTANY LABORATORY.**—(2). Morphology, physiology, and ecology of representative groups of the plant world. *Prerequisite:* Botany 1a, or concurrent registration therein.
16. **ECONOMIC BOTANY.**—(3). Uses of plants and plant products by man; origin of cultivated plants and their relation to human history. *Prerequisite:* Botany 1a or 1b.

CHEMISTRY

1. **INORGANIC CHEMISTRY.**—(5). For students who have no entrance credit for high school chemistry. *Prerequisite:* One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 2 or 3.
2. **INORGANIC CHEMISTRY.**—(3). Lectures, recitations, and laboratory. For all students who have had one year of high school chemistry. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 2 if they complete the course with a grade of "C" or higher. Students who have failed in Chemistry 1 are permitted to register for Chemistry 2 and will receive five hours credit if their final grade is "C" or higher. *Prerequisite:* One unit of entrance credit in chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1 or 3.
3. **INORGANIC CHEMISTRY.**—(4). Lectures, recitations, and laboratory. For engineering students who have had no chemistry. Students who have received credit in high school chemistry are given only three hours credit.
4. **CHEMISTRY OF THE METALLIC ELEMENTS.**—(4). Lectures, recitations, and laboratory. Limited to students in the engineering curriculum. Credit in Chemistry 4 will not be granted to students who have received credit in Chemistry 5 or Chemistry 6. *Prerequisite:* Chemistry 1, 2, or 3.
5. **INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.**—(5). Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 4 or 6. Credit in Chemistry 5 will not be granted to students who have received credit in Chemistry 4 or Chemistry 6. *Prerequisite:* Chemistry 1, 2, or 3.
6. **INORGANIC CHEMISTRY.**—(5). Metallic elements. For students in the curriculum of chemistry, and chemistry majors who are not pre-medics. Credit in Chemistry 6 will not be granted to students who have received credit in Chemistry 4 or Chemistry 5. *Prerequisite:* Chemistry 1, 2, or 3.

10. QUALITATIVE ANALYSIS.—(5). Qualitative analysis of metals and inorganic compounds. Required of students whose major is chemistry and those registered in the curriculum of chemistry or chemical engineering. *Prerequisite:* Chemistry 6.
22. ELEMENTARY QUANTITATIVE ANALYSIS.—(5). Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. Lectures, recitations, and laboratory. *Prerequisite:* Chemistry 4 or 5. For students in pre-medical courses and all others who have not followed the sequence Chemistry 1, 2 or 3, 6, and 10.
24. QUANTITATIVE ANALYSIS.—(5). Gravimetric and volumetric analysis, modern advanced theory and practice. Lectures, recitations, and laboratory. *Prerequisite:* Chemistry 10.
33. ELEMENTARY ORGANIC CHEMISTRY.—(5). For pre-medical students. Important compounds of carbon. Lectures, recitations, and laboratory. *Prerequisite:* Chemistry 5 or 10.
34. ORGANIC CHEMISTRY.—(5). For students whose major is chemistry or for those registered in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. *Prerequisite:* Chemistry 6, 10, and 24.

ENGLISH

- 10a. TYPES OF POETRY.—(3). Intended primarily for those who expect to do considerable work in literature, in English or in any other language. Credit is not given for English 11a or 11b in addition to English 10a, or for any of these courses in addition to English 20a and 20b. *Prerequisite:* Minimum entrance requirements in English.
- 10b. STUDY OF DRAMA.—(3). See note under English 10a. *Prerequisite:* English 10a or 11a.
- 11a. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite:* Minimum entrance requirement in English.
- 11b. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite:* English 11a.
12. AMERICAN LITERATURE.—(2). *Prerequisite:* Sophomore standing or exemption from Rhetoric 2.
13. AMERICAN LITERATURE.—(2). *Prerequisite:* Sophomore standing, or exemption from Rhetoric 2.
- 20a. CHIEF ENGLISH WRITERS OF THE 19TH CENTURY.—(4). Nineteenth-century men of letters on religion, politics, economics, conduct and social life. For students in professional and technical courses. Credit is not given for English 20a in addition to English 10a-10b or 11a-11b. *Prerequisite:* Sophomore standing.
- 20b. CHIEF ENGLISH WRITERS BEFORE 1800.—(4). Credit is not given for English 20b in addition to English 10a-10b or 11a-11b. *Prerequisite:* English 20a.
23. INTRODUCTION TO SHAKESPEARE.—(3). *Prerequisite:* Sophomore standing or exemption from Rhetoric 2.

Rhetoric

0. RHETORIC AND COMPOSITION.—(No credit). Open to students who fail the placement test for admission to Rhetoric 1. Intensive review of fundamentals, with considerable practice in composition. Students passing the course will be admitted to Rhetoric 1 without further examination.
1. RHETORIC AND COMPOSITION.—(3). This course provides elementary training and practice in the comprehension and in the expression of both written and oral English. *Prerequisite:* A passing grade on the Rhetoric 1 placement examination or a passing grade in Rhetoric 0. Rhetoric 1 and 2 are not counted toward a major in English.

2. RHETORIC AND COMPOSITION.—(3). See note under Rhetoric 1. *Prerequisite:* Rhetoric 1 or exemption from Rhetoric 1.
3. EXPOSITION.—(3). *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
4. NARRATION AND DESCRIPTION.—(3). Elements of narrative writing. *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
5. RHETORIC AND COMPOSITION.—(3). Required of students who fail the qualifying examination.
10. BUSINESS LETTER WRITING.—(2). This course is not counted toward a major in English. *Prerequisite:* Rhetoric 1 and 2.

Speech

1. PRINCIPLES OF EFFECTIVE SPEAKING.—(3). Speech composition, delivery, how to hold the attention and interest of the audience. Short expository and argumentative talks on selected topics. Open to freshmen.
2. BUSINESS AND PROFESSIONAL SPEAKING.—(2). Persuasion, composition, and delivery of common types of business and semi-public addresses. *Prerequisite:* Speech 1 and sophomore standing.
10. ORAL INTERPRETATION OF LITERATURE.—(2). Principles of interpretation; analysis and oral reading of prose literature and verse. Open to freshmen.

FRENCH

- 1a. ELEMENTARY FRENCH.—(4). Grammar, pronunciation, reading of modern authors, composition, conversation. No credit toward graduation is given for French 1a without French 1b.
- 1b. ELEMENTARY FRENCH (CONTINUED).—(4). *Prerequisite:* French 1a, or one year of high school French.
- 2a. MODERN FRENCH.—(4). Rapid reading of modern authors; syntax and composition. *Prerequisite:* French 1b, or two years of high school French.
- 2b. MODERN FRENCH (CONTINUED).—(4). *Prerequisite:* French 2a or three years of high school French.
- 3a. INTRODUCTION TO FRENCH LITERATURE.—(3). *Prerequisite:* French 2b or four years of high school French.

GEOGRAPHY

1. ELEMENTS OF GEOGRAPHY.—(5). The geographic point of view; elements of physical landscape; planetary relations, climate, climatic regions, land-forms; elements of material culture. Five hours of lecture, discussion, and quiz.
2. ECONOMIC GEOGRAPHY.—(5). Geographic conditions affecting industries, production, and commerce of the world; development and relation of commercial areas to location and availability of resources; markets and transportation routes. *Prerequisite:* Geography 1.
22. GENERAL GEOGRAPHY.—(5). A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 1 or 2.



In Bacteriology Lab

GEOLOGY

1. GENERAL GEOLOGY.—(3). Cultural course. Surface features; agencies and processes of change; development of topographic forms; rocks and minerals; volcanoes, earthquakes, mountain-making forces; introduction to the history of the earth and the development of life.
- 1a. GENERAL GEOLOGY LABORATORY.—(2). *Prerequisite*: Geology 1 or concurrent registration therein.
- 2a. HISTORICAL GEOLOGY.—(4). Evolution of the earth and its life. *Prerequisite*: Geology 1.
20. GENERAL MINERALOGY.—(3). Crystallography; minerals of economic and scientific importance; blow-pipe analysis. *Prerequisite*: One semester of chemistry.
43. ENGINEERING GEOLOGY.—(3). *Prerequisite*: Sophomore standing in the College of Engineering.

GERMAN

1. ELEMENTARY GERMAN.—(4). Grammar and reading for beginners. Not open to students who have had high school credit in this language. No credit toward graduation is given for German 1 without German 2.
2. ELEMENTARY COURSE (CONTINUED).—(4). Grammar and reading. *Prerequisite*: German 1, or one year of high school German, or equivalent.
4. INTERMEDIATE COURSE.—(4). Modern narrative prose. Oral practice and sight reading. *Prerequisite*: German 2, or two years of high school German, or equivalent.
5. INTERMEDIATE COURSE (CONTINUED).—(4). Literary reading. Modern narrative prose, but at the option of the instructor one of the easier classical works may also be read. Oral practice and sight reading. *Prerequisite*: German 4, or three years of high school German, or equivalent.

HISTORY

- 1a. CONTINENTAL EUROPEAN HISTORY TO 1815.—(4). Europe from the age of the great discoveries to the close of the Napoleonic wars.
- 1b. CONTINENTAL EUROPEAN HISTORY, 1815-1947.—(4). Development of European nationalism, liberalism, and imperialism; World War; reconstruction.
- 2a. HISTORY OF ENGLAND.—(3). History of the British peoples to the close of the seventeenth century (1688).
- 2b. HISTORY OF ENGLAND, 1688-1947.—(3). Modern history of the United Kingdom; colonial and imperial development.
- 3a. HISTORY OF THE UNITED STATES TO 1828.—(3). Colonial foundations, the movement for independence, early years of the Republic. *Prerequisite*: Sophomore standing.
- 3b. HISTORY OF THE UNITED STATES, 1828-1947.—(3). A century of national life and organizations. *Prerequisite*: Sophomore standing.
- 5a. THE ANCIENT WORLD.—(3). Ancient empires and Greece. *Prerequisite*: Sophomore standing.
- 5b. THE ANCIENT WORLD.—(3). Rome. *Prerequisite*: Sophomore standing.

MATHEMATICS

- R. ELEMENTARY ALGEBRA FOR VETERANS.—(No credit). For veterans who are not ready for Mathematics 3. Registration follows a placement examination.
- MATH. G. PLANE GEOMETRY FOR VETERANS.—(No credit). Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course.
1. SOLID GEOMETRY.—(3). Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. *Prerequisite*: Entrance algebra, 1 unit; plane geometry, 1 unit.

2. COLLEGE ALGEBRA.—(3). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
3. ALGEBRA.—(5). Students having $1\frac{1}{2}$ entrance units in algebra receive only three hours credit. *Prerequisite:* Entrance algebra, 1 unit; Plane geometry, 1 unit.
4. PLANE TRIGONOMETRY.—(2). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units, or concurrent registration in Mathematics 3.
- 4a. ELEMENTS OF ALGEBRA AND TRIGONOMETRY.—(3). For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 6a. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 4 above. *Prerequisite:* High school algebra, 1 unit.
5. ADVANCED TRIGONOMETRY.—(2). Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, DeMoivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 4 or entrance trigonometry ($\frac{1}{2}$ unit) provided the student can pass placement test to be given in the first two class meetings.
- 6a. ANALYTICAL GEOMETRY.—(4). *Prerequisite:* Mathematics 2 or 3 and Mathematics 4 or 5.
7. CALCULUS.—(5). First course for students of mathematics and engineering. *Prerequisite:* Mathematics 6a.
9. CALCULUS.—(3). Second course for students of mathematics and engineering. *Prerequisite:* Mathematics 7.

PHILOSOPHY

1. INTRODUCTION TO PHILOSOPHY.—(3). *Prerequisite:* Sophomore standing.
2. LOGIC.—(3). Reasoning; detection of fallacies, evidence. *Prerequisite:* Sophomore standing.

PHYSIOLOGY

1. MAMMALIAN PHYSIOLOGY.—(3). Without laboratory.

POLITICAL SCIENCE

- 1a. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS.—(3). Historical development and organization of national and state and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. *Prerequisite:* Sophomore standing.
- 1b. AMERICAN GOVERNMENT: FUNCTIONS.—(3). Functions of national, state and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. *Prerequisite:* Sophomore standing; Political Science 1a or consent of the department.
16. GOVERNMENT IN ILLINOIS.—(2). Only one hour for this course is allowed to students who also take Political Science 1a. *Prerequisite:* Sophomore standing.

PSYCHOLOGY

1. INTRODUCTION TO PSYCHOLOGY.—(4). Essential facts and principles of psychology. *Prerequisite:* Sophomore standing.

2. **FIELDS OF PSYCHOLOGY.**—(4). The various fields in psychology, with special emphasis on applications. *Prerequisite:* Psychology 1.
21. **CHARACTER AND PERSONALITY.**—(3). Analysis of the non-intellectual aspects and determinants of mentality and conduct, with special application to behavior problems and personnel psychology. *Prerequisite:* Psychology 1.

SOCIOLOGY

1. **PRINCIPLES OF SOCIOLOGY.**—(3). *Prerequisite:* Sophomore standing.
2. **SOCIAL FACTORS IN PERSONALITY.**—(3). Nature of person and relation to institutions, social order, and development. *Prerequisite:* Sociology 1.

SPANISH

- 1a. **ELEMENTARY SPANISH.**—(4). Grammar, pronunciation, reading, composition, conversation. For students who have had no work in Spanish. No credit for graduation is given for Spanish 1a without Spanish 1b.
- 1b. **ELEMENTARY SPANISH (CONTINUED).**—(4). *Prerequisite:* Spanish 1a or one year of high school Spanish.
- 2a. **MODERN SPANISH.**—(4). Rapid reading, review of grammar, composition, conversation. *Prerequisite:* Spanish 1b or two years of high school Spanish.
- 2b. **MODERN SPANISH (CONTINUED).**—(4). *Prerequisite:* Spanish 2a or three years of high school Spanish.
- 3a. **INTRODUCTION TO SPANISH LITERATURE.**—(3). Reading of modern authors of Spain and Latin America. *Prerequisite:* Spanish 2b or four years of high school Spanish.
- 3b. **INTRODUCTION TO SPANISH LITERATURE (CONTINUED).**—(3). See descriptive note under Spanish 3a.

ZOOLOGY

1. **GENERAL ZOOLOGY.**—(5). Animal biology; structure, function, environmental relations, origin, and development of animals. Lectures, laboratory, and quiz.
2. **COMPARATIVE VERTEBRATE ANATOMY.**—(5). Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their functions and evolution. Lectures, laboratory, and quiz. *Prerequisite:* Zoology 1. Grade of "C" in Zoology 1 is required of freshmen.



In
Zoology
Lab







Randolph P. Hoelscher
Associate Dean

COLLEGE OF ENGINEERING

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce and government, the College of Engineering provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds. The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. Thus training for the practice of engineering as a profession is supplemented by an understanding of human relationships, and appreciation of economic factors in industrial and public works enterprises, and an insight into regional and national problems of production and distribution of goods.

At the Chicago Undergraduate Division the first two years of courses in the following fields are offered: aeronautical engineering; civil engineering; electrical engineering; mechanical engineering; mining and metallurgical engineering; and engineering physics.

Electives

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences and in the College of Commerce, and the six courses in Engineering numbered 10, 20, 39, 40, 41, and 92. Field survey courses may be used in place of the non-technical and approved electives in any curriculum.

Technical electives include all courses in the College of Engineering not required in the student's curriculum, excepting General Engineering Drawing 1, 2, 4, 6, 7, and 8, and Engineering 10, 20, 39, 40, 41, and 92.

Approved electives include all technical and non-technical electives as defined above and other courses designated as approved electives in the outlines of curricula.

COMMON PROGRAM FOR FRESHMEN

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 2 or 3—Inorganic Chemistry.....	3 or 4	Chem. 4—Metallic Elements.....	4
G.E.D. 1 or 4—Elements of Drawing.....	4	G.E.D. 2—Descriptive Geometry.....	4
Math. 2—Advanced Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4 or 5—Trigonometry.....	2	Rhet. 2—Rhetoric and Composition.....	3
Rhet. 1—Rhetoric and Composition.....	3	Hygiene.....	2
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	16-17	<i>Total</i>	18

CURRICULUM IN AERONAUTICAL ENGINEERING

For the Degree of Bachelor of Science in Aeronautical Engineering

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 3—Aircraft Drafting and Lofting.....	2	Math. 9—Integral Calculus.....	3
Math. 7—Differential Calculus.....	5	M.E. 82—Machine Tool Laboratory.....	2
M.E. 81—Pattern, Foundry, and Welding Laboratory.....	2	Phys. 1b—General Physics.....	4
Phys. 1a—General Physics.....	4	Phys. 3b—Physics Laboratory.....	1
Phys. 3a—Physics Laboratory.....	1	Speech 1—Prin. of Effective Speaking.....	3
Non-technical Elective.....	2	T.A.M. 1 and 2—Analytical Mechanics (Statics and Dynamics).....	5
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	17	<i>Total</i>	19

CURRICULUM IN CHEMICAL ENGINEERING

For the Degree of Bachelor of Science in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences.
See page 18.

CURRICULUM IN CIVIL ENGINEERING

For the Degree of Bachelor of Science in Civil Engineering

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 3a—Route Surveying ¹	3	C.E. 35—Plain Concrete ²	2
C.E. 60—Bridge and Bldg. Constr.....	3	C.E. 36—Construction Materials.....	2
Math. 7—Differential Calculus.....	5	Geol. 43—Engineering Geology ³	3
Phys. 1a—General Physics.....	4	Math. 9—Integral Calculus.....	3
Phys. 3a—Physics Laboratory.....	1	Phys. 1b—General Physics.....	4
Physical Education.....	1	Phys. 3b—Physics Laboratory.....	1
		T.A.M. 1—Analytical Mech. (Statics).....	2
		Physical Education.....	1
<i>Total</i>	17	<i>Total</i>	18

¹ Not given at the Chicago Undergraduate Division.

² To be offered in fall semester of 1947.

³ Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geology 43, 3 hours, and approved and non-technical electives, 5 hours.

CURRICULUM IN ELECTRICAL ENGINEERING

For the Degree of Bachelor of Science in Electrical Engineering

First Year

Common Program for Freshmen (page 29).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
E.E. 20a—Illuminating Engineering and Secondary Power ²	3	E.E. 21—Introduction to electro-dynamics ²	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 87—Machine Tool Laboratory; or Speech 1—Principles of Effective Speaking ³	3	Speech 1—Principles of Effective Speaking; or M.E. 87—Machine Tool Laboratory ⁴	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics).....	2
		T.A.M. 2—Analyt. Mech. (Dynamics).....	3
		Physical Education.....	1
<i>Total</i>	18	<i>Total</i>	20

CURRICULUM IN ENGINEERING PHYSICS

For the Degree of Bachelor of Science in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the Engineering Physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

First Year

Common Program for Freshmen (page 29), except that substitution of Chem. 6 for Chem. 4 is advised.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective.....	4	German or Approved Elective.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics).....	2
Approved Elective.....	3	Physical Education.....	1
		Approved Elective.....	3
<i>Total</i>	18	<i>Total</i>	18

¹ Beginning with the second semester of the third year in Electrical Engineering, three options are available: communication and electronics, illumination, or power. Courses in the second year will vary according to the option the student intends to select in the third year (see notes 3 and 4, below).

² To be offered in fall semester of 1947.

³ Students intending to select the option in Illumination take Speech 1.

⁴ Students intending to select the option in Illumination take Physiology 1 or 5.

CURRICULUM IN GENERAL ENGINEERING

For the Degree of Bachelor of Science in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to secure a sound education in engineering principles and their application. Fifteen hours work in economics, business law, etc., are required, and twelve hours of free electives are allowed.

First Year

Common Program for Freshmen (page 29).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 2—Principles of Economics.....	3	Geol. 43—Engineering Geology.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 85—Pattern and Foundry Lab.; or C.E. 15—General Surveying.....	3	C.E. 15—General Surveying; or M.E. 85—Pattern and Foundry Lab.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics)	2
		Physical Education.....	1
<i>Total</i>	<u>17</u>	<i>Total</i>	<u>17</u>

CURRICULUM IN MECHANICAL ENGINEERING

For the Degree of Bachelor of Science in Mechanical Engineering

First Year

Common Program for Freshmen (page 29).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 31a—Mechanism ²	3	Approved Elective ³	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 85—Pattern and Foundry Lab.; or M.E. 87—Machine Tool Lab.....	3	M.E. 87—Machine Tool Lab.; or M.E. 85—Pattern and Foundry Lab.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1 and 2—Analytical Me- chanics (Statics and Dynamics)....	5
		Physical Education.....	1
<i>Total</i>	<u>17</u>	<i>Total</i>	<u>21</u>

¹ The following options are available in Mechanical Engineering in the third and fourth years: general mechanical engineering, industrial, research, aeronautical, petroleum production, machine design, steam power, gas power, and railway.

² To be offered in fall semester of 1947.

³ Eight hours or more in a foreign language (French, German, or Spanish) may be substituted for an equal number of hours of approved electives.

CURRICULUM IN METALLURGICAL ENGINEERING

For the Degree of Bachelor of Science in Metallurgical Engineering

This curriculum is intended for the training of industrial metallurgists and those who wish to engage in advanced study and research, either in operational processes or in various problems involving physical and chemical phases of metallurgy.

First Year

Common Program for Freshmen (page 29), except that Chem. 5 and Math. 10a-10b are substituted for Chem. 4 and Math. 2, 4, 6a.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 22—Quantitative Analysis	5	C.E. 15—General Surveying	3
Math. 8a—Differential Calculus	3	Math. 8b—Integral Calculus	3
Phys. 1a—General Physics	4	M.E.'85—Pattern and Foundry Lab.; or German or French	3 or 4
Phys. 3a—Physics Laboratory	1	Phys. 1b—General Physics	4
Physical Education	1	Phys. 3b—Physics Laboratory	1
Approved Elective or German or French	3 or 4	T.A.M. 1—Analyt. Mech. (Statics)	2
		Physical Education	1
<i>Total</i>	17-18	<i>Total</i>	17-18

CURRICULUM IN MINING ENGINEERING

For the Degree of Bachelor of Science in Mining Engineering

First Year

Common Program for Freshmen (page 29).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 43—Engineering Geology	3	Geol. 20—General Mineralogy	3
Math. 7—Calculus	5	Math. 9—Calculus	3
Min. 1—Elements of Mining	4	Min. 2—Mining Methods	4
Phys. 1a—General Physics	4	Phys. 1b—General Physics	4
Phys. 3a—Physics Laboratory	1	Phys. 3b—Physics Laboratory	1
Physical Education	1	T.A.M. 1—Analyt. Mech. (Statics)	2
		Physical Education	1
<i>Total</i>	18	<i>Total</i>	18

COURSES OF INSTRUCTION

CIVIL ENGINEERING

1. PLANE SURVEYING.—(3). Use and care of instruments; practice in the common field of methods of measuring distance, angles, and elevations; computations of areas and volumes; land survey and re-survey methods; legal principles; problems. At summer camp only. *Prerequisite*: General Engineering Drawing 1; Mathematics 4.
2. TOPOGRAPHIC SURVEYING.—(3). Contours, map construction and volumetric estimates from contour maps; astronomical determination of latitude and azimuth; transit-stadia methods of topographic surveying; survey and map of an assigned area. At summer camp only. *Prerequisite*: Civil Engineering 1.

- 3a. ROUTE SURVEYING.—(3). Horizontal and vertical alinement for railways and highways; grades and grade reduction; curves, turnouts, and earthwork, principles of economic location; surveys, plans, and estimates. *Prerequisite*: Civil Engineering 2, 15, or 18.
35. PLAIN CONCRETE.—(2). Tests for Portland cement; aggregates; field and laboratory examination and tests; proportioning. Laboratory practice. *Prerequisite*: Sophomore standing in engineering, architecture, or landscape architecture.
36. CONSTRUCTION MATERIALS.—(1). Manufacture, properties, and use of cast iron, wrought iron, steel and other metals, brick and terra cotta; formation, properties, and use of stone; growth, properties, and use of timber. This course supplements Civil Engineering 35. *Prerequisite*: Sophomore standing.
60. BRIDGE AND BUILDING CONSTRUCTION.—(3). Materials, types of construction, and details for bridges and buildings. *Prerequisite*: Sophomore standing.

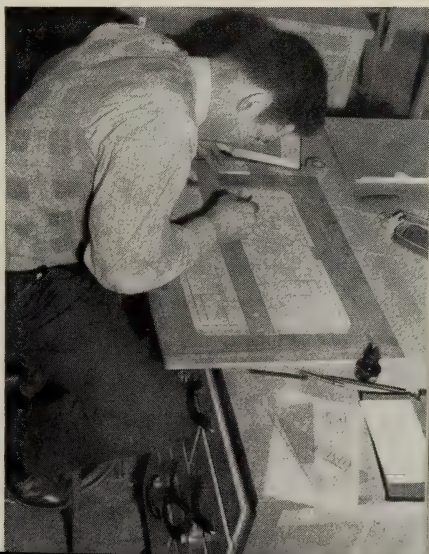
ELECTRICAL ENGINEERING

- 20a. ILLUMINATING ENGINEERING AND SECONDARY POWER.—(3). Fundamentals of illuminating engineering and lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. Open only to students in Electrical Engineering. *Prerequisite*: Sophomore standing in Electrical Engineering.
21. INTRODUCTION TO ELECTRODYNAMICS.—(3). Study of units and relations in electrostatic, magnetostatic, and electromagnetic circuits; characteristics of circuits parameters singly and in combinations. *Prerequisite*: Physics 1a, 3a, Mathematics 7, registration in Physics 1b, 3b, Mathematics 9.

GENERAL ENGINEERING DRAWING

1. ELEMENTS OF DRAWING.—(4). Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawings; free-hand sketching; tracings; methods of reproducing drawings. *Prerequisite*: Plane Geometry (1 unit).
2. DESCRIPTIVE GEOMETRY.—(4). Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing, etc. *Prerequisite*: Plane and Solid Geometry (1½ units).
3. AIRCRAFT DRAFTING AND LOFTING.—(2). Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting-plane tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. *Prerequisite*: General Engineering Drawing 1 and 2.
6. ELEMENTS OF DRAWING.—(3). Same topics as covered in General Engineering Drawing 1 plus piping and perspective drawing. For students in chemical engineering. *Prerequisite*: Plane Geometry (1 unit).
7. ARCHITECTURAL PROJECTIONS.—(2). Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. *Prerequisite*: Plane and solid geometry (1½ units).

General Engineering Drawing Lab



8. ARCHITECTURAL PROJECTIONS (CONTINUED).—(2). Shades and shadows; oblique, isometric and perspective drawing; developments. *Prerequisite:* General Engineering Drawing 7.
10. PICTORIAL DRAWING.—(3). Industrial production illustration; axonometric, oblique, perspective, shades and shadows, rendering. *Prerequisite:* General Engineering Drawing 2.
12. GRAPHICAL CALCULATIONS.—(1). Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula in the College of Engineering. *Prerequisite:* General Engineering Drawing 1; Mathematics 6a.

MECHANICAL ENGINEERING

81. MACHINE TOOL OPERATION.—(4). Operation of machine tools; use of jigs and fixtures; tools for producing interchangeable parts. *Prerequisite:* Sophomore standing. For aeronautics students only.
- 31a. MECHANISM.—(2). A study of the transmission and modification of motion illustrated by linkwork, gearing, cams, screws, wrapping connections, etc. The subject is taught by lecture and discussion in the classroom and the solution of typical problems in the drafting room, employing graphical methods of investigation and solution. *Prerequisite:* To be taken with Physics 1a.
82. MACHINE TOOL PRODUCTION METHODS.—(2). Operation and function of machine tools; the use of jigs and fixtures in quantity production to reduce cost and insure interchangeable parts. *Prerequisite:* Sophomore standing; General Engineering Drawing 1.
85. PATTERN AND FOUNDRY LABORATORY.—(3). Design of wood and metal patterns; metallurgy of gray iron, floor, bench, and machine moulding; core-making; brass furnace and cupola practice; sand testing. *Prerequisite:* Sophomore standing and General Engineering Drawing 1.
87. MACHINE TOOL LABORATORY.—(3). Machine tools; fixture, jigs, and tools for producing interchangeable parts. *Prerequisite:* Sophomore standing.

PHYSICS

- 1a. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT).—(4). Lectures with demonstrations and recitations. For students in engineering, mathematics, physics, and chemistry. *Prerequisite:* Mathematics 2 and 4; concurrent registration in Physics 3a.
- 1b. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT).—(4). *Prerequisite:* Physics 1a; registration in Physics 3b.
- 3a. GENERAL PHYSICS LABORATORY.—(1). To accompany Physics 1a. *Prerequisite:* Physics 1a or registration therein.
- 3b. GENERAL PHYSICS LABORATORY.—(1). To accompany Physics 1b. *Prerequisite:* Physics 1b, or registration therein.

THEORETICAL AND APPLIED MECHANICS

1. ANALYTICAL MECHANICS (STATICS).—(2). Force systems, equilibrium; centroids; center of gravity; friction. *Prerequisite:* Mathematics 7; concurrent registration in Mathematics 9.
2. ANALYTICAL MECHANICS (DYNAMICS).—(3). Kinematics and kinetics. *Prerequisite:* Theoretical and Applied Mechanics 1.
17. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS.—(3). Force systems; equilibrium; friction, centroids; direct stress, riveted joints, beams, moment of inertia, deflection of columns. For architects and others who have not taken the calculus. *Prerequisite:* Mathematics 6a.
18. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS (CONTINUED).—(3). *Prerequisite:* Theoretical and Applied Mechanics 17.

ARCHITECTURE

(Offered under the College of Engineering)

Since the practice of architecture is so diversified that no one can encompass it in all its details, some degree of specialization is necessary. In order to train future architects, two options are offered: general architecture and architectural engineering. A general understanding of the profession of architecture from the standpoint of design, safety, and economy, and of the architect's duties, is emphasized in both options. The first year of work is identical in both; a field of specialization is selected in the second year.

The general architecture option places the major emphasis on architectural design and includes a substantial program in architectural engineering. While the aesthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The architectural engineering option offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes two years of architectural design, freehand drawing, and the history of architecture, the student primarily interested in architectural engineering can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business, engineering, and language and literature. It also provides sufficient training for independent practice as an architectural engineer.

CURRICULUM IN ARCHITECTURE

For the Degree of Bachelor of Science in Architecture

This curriculum, which requires 142 semester hours for graduation, emphasizes architectural design in the training of students for service as draftsmen and designers in architectural organizations and for independent practice.



In Art Class

(Those who are interested in architectural engineering are referred to the option outlined below.)

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 31—Architectural Design.....	3	Arch. 32—Architectural Design.....	3
Art 21a—Freehand Drawing.....	2	Art 21b—Freehand Drawing.....	2
G.E.D. 7—Architectural Projections..	2	G.E.D. 8—Architectural Projections..	2
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Trigonometry.....	2	Hygiene 2 or 5—Hygiene and Sanitation.....	2
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

Arch. 13—History of Architecture....	2	Arch. 14—History of Architecture....	2
Arch. 33—Architectural Design.....	3	Arch. 34—Architectural Design.....	3
Arch. 43—Technology of Materials....	3	Arch. 44—Technology of Materials....	3
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
T.A.M. 17—Elements of Mechanics...3		T.A.M. 18—Strength of Materials...3	
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	19	<i>Total</i>	19

CURRICULUM IN ARCHITECTURAL ENGINEERING

For the Degree of Bachelor of Science in Architectural Engineering

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 31—Architectural Design.....	3	Arch. 32—Architectural Design.....	3
Art 21a—Freehand Drawing.....	2	Art 21b—Freehand Drawing.....	2
G.E.D. 7—Architectural Projections..	2	G.E.D. 8—Architectural Projections..	2
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Trigonometry.....	2	Hygiene 2 or 5—Hygiene and Sanitation.....	2
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

Arch. 13—History of Architecture....	2	Arch. 14—History of Architecture....	2
Arch. 33—Architectural Design.....	3	Arch. 34—Architectural Design.....	3
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics) 2	
<i>Total</i>	18	Physical Education.....	1
		<i>Total</i>	18

Electives

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 1a, 1b, 2a, Mathematics 2, 3, 4, 5, 6, Botany 1a, 1b, Geography 1, Geology 1, Zoology 1.

COURSES OF INSTRUCTION

ARCHITECTURE

13. ARCHITECTURE AND CIVILIZATION OF THE NEAR ORIENT.—(2). An analysis of structural space and form in the Near Orient, from Egypt to Persia (Iran), based on a study of the environmental influences and scientific achievement which governed the production in each area. Illustrated lectures, readings, sketches, and reports. *Prerequisite:* Architecture 31 or 32, or sophomore standing.
14. ARCHITECTURE AND CIVILIZATION OF GREECE AND ROME.—(2). An analysis of structural space and form in the areas affected by the classical developments of Greece and Rome. The course follows the pattern of Architecture 13 in the consideration of environmental influences and scientific achievement as factors underlying classic structural form. Illustrated lectures, readings, sketches, and reports. *Prerequisite:* Architecture 13.
- 31-32. ARCHITECTURAL DESIGN.—(3). Beginning study of architectural planning and designing. Fundamentals of sketching and presentation.
- 33-34. ARCHITECTURAL DESIGN.—(3). Continued study of architectural planning and designing; study of principles of plan, elevation, and section of small buildings. *Prerequisite:* Architecture 32.
43. MATERIALS AND METHODS OF CONSTRUCTION.—(3). Methods and materials of wood frame construction; manufacture and uses of materials of such construction; working drawings. *Prerequisite:* Architecture 32.
44. MATERIALS AND METHODS OF CONSTRUCTION.—(3). Methods of masonry and fireproof construction; manufacture and uses of materials of such construction; working drawings; detailing. *Prerequisite:* Architecture 43 or consent of instructor.

ART

- 21a-21b. FREEHAND DRAWING.—(2). Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal.
- 22a-22b. FREEHAND DRAWING (CONTINUED).—(2). Primarily for students in architecture and landscape architecture. Charcoal drawing from the cast; water color. *Prerequisite:* Art 21b.



Robert P. Hackett
Associate Dean

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

THROUGH KNOWLEDGE OF MODERN BUSINESS PRACTICES and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for underclassmen. Though the factual contents of many of the courses are directly useful in specific vocations — accounting, banking, selling, teaching — students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Many of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University.

PROGRAM FOR THE LOWER DIVISION¹ (Freshman and Sophomore Years)

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 22—Economic History of U.S.	3	Econ. 27—Introduction to Business.	3
Accy. 1a or 1e—Prin. of Accounting.	3 or 2	Accy. 1b—Accounting Procedure.	3
Rhet. 1—Rhetoric and Composition.	3	Rhet. 2—Rhetoric and Composition.	3
Science and/or College Algebra ²	5-8	Science and/or College Algebra ²	3-5
Physical Education.	1	Hygiene 2 or 5—Hygiene and Sanitation.	2
		Physical Education.	1
<i>Total</i>	15-17	<i>Total</i>	15-17

¹ Students interested in commercial teaching should contact the Dean of the College.
² See next page for footnote.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 1—Principles of Economics.....	5	Econ. 70—Elementary Statistics.....	3
Accy. 2a—Cost Accounting.....	3	Accy. 2b—Intermediate Accounting..	3
Language or Literature ³	4	Language or Literature ³	4
Rhet. 10—Business Letter Writing ⁴ ...	2	Rhet. 10—Business Letter Writing ⁴ ...	2
or Speech 1—Effective Speaking.....	3	or Speech 1—Effective Speaking.....	3
Physical Education.....	1	Physical Education.....	1
		Elective.....	2-5
<i>Total</i>	15-17	<i>Total</i>	15-17

² *Mathematics and Science.*—All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to 5 or more hours each semester, or a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.

³ *Language.*—Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college. For the purpose of this requirement a candidate is assumed to have a reading knowledge of a modern foreign language if he has passed French 2b, German 5 or 6, Italian 2b, Spanish 2b, or a more advanced course in any of these languages, or if he has passed a proficiency examination equivalent to the final examination given in any of these courses. Students expecting later to elect *Government Foreign Service* or *Foreign Trade* as a field of concentration must choose the foreign language option.

⁴ *Rhetoric and Speech.*—Students taking Rhetoric 10 (Business Letter Writing) the first semester must take Speech 1 the second semester; those taking Speech 1 the first semester must take Rhetoric 10 the second semester.

Class in Accountancy



COURSES OF INSTRUCTION

ACCOUNTANCY

- 1a. PRINCIPLES OF ACCOUNTING.—(3). Simple transactions, accounts, books, statements; trial balances, adjustments; partnerships. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 1a and should register in Accountancy 1e.
- 1b. ACCOUNTING PROCEDURE.—(3). Relation of business documents to accounts; balance sheet and income statement. *Prerequisite*: Accountancy 1a or 1e.
- 1e. PRINCIPLES OF ACCOUNTING.—(2). Similar to Accountancy 1a, for those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 1a are permitted to register in Accountancy 1e and receive credit as in Accountancy 1a if their final grade is "C" or above. *Prerequisite*: One unit of entrance credit in bookkeeping.
- 2a. ELEMENTARY COST ACCOUNTING.—(3). Departmental, process, sequential, and job lot cost; cost records and procedures; disposition of burden. *Prerequisite*: Accountancy 1b; registration or credit in Economics 1 or 2.
- 2b. INTERMEDIATE ACCOUNTING.—(3). Depreciation; corporation accounts; interpretation of balance sheet and income statements. *Prerequisite*: Accountancy 2a.

ECONOMICS

NOTE: Economics 1 is the fundamental course in economics and is prerequisite for most of the advanced courses. Students expecting to do advanced work in economics should take Economics 1 in their sophomore year.

Economics 2, though open to all students who have had one year of University work, is primarily for students in the College of Engineering and in chemistry and other sciences. It may not be used as a prerequisite for advanced courses in economics except as indicated.

1. PRINCIPLES OF ECONOMICS.—(5). Value, price, money, exchange, distribution, consumption, and other fundamental concepts. *Prerequisite*: One year of University work.
2. ELEMENTS OF ECONOMICS.—(3). A briefer presentation of the matter covered in Economics 1. For non-commerce students. *Prerequisite*: One year of University work.
22. ECONOMIC HISTORY OF THE UNITED STATES.—(3). Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only.
27. INTRODUCTION TO BUSINESS.—(3). Survey of principles and practices, from the point of view of the business manager. Open to freshmen who have had one semester of University work.
70. ELEMENTS OF STATISTICS.—(3). Methods of collection, presentation, and interpretation of quantitative economic data; averages, dispersion, index numbers, time series analysis, and simple correlation. *Prerequisite*: Economics 1 or 2; sophomore standing.



n's Gym Class

PHYSICAL EDUCATION

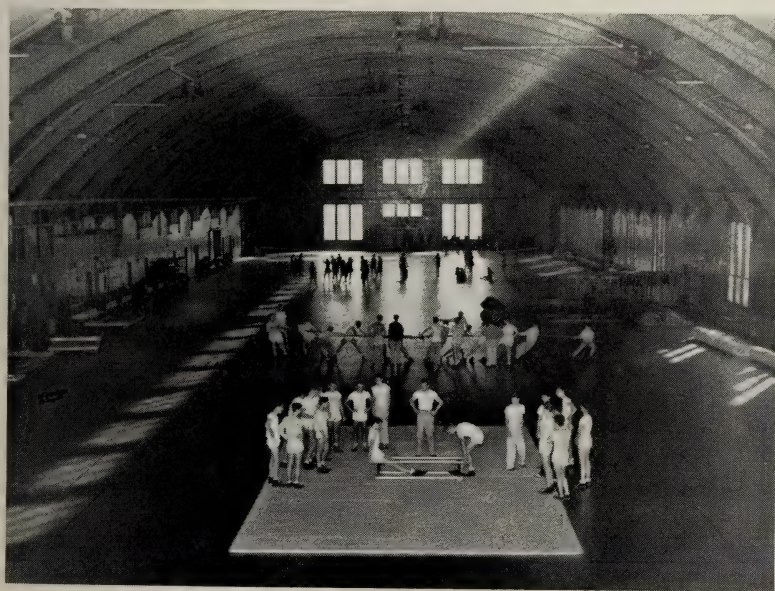
ALL STUDENTS, except veterans who have fulfilled the four-hour physical education requirement while in the service, are required to take physical education each semester until four credit hours have been earned. Physical education may be deferred only by special permission from the dean of the student's college.

Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce.

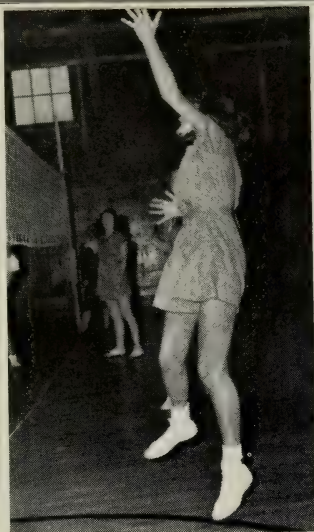
Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special

courses where they are given individualized programs. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week (for 1 hour) or two times a week (for 1½ hours). All general courses in physical education carry one hour of credit.



Navy Pier Gymnasium



Women's Gym Class

COURSES OF INSTRUCTION

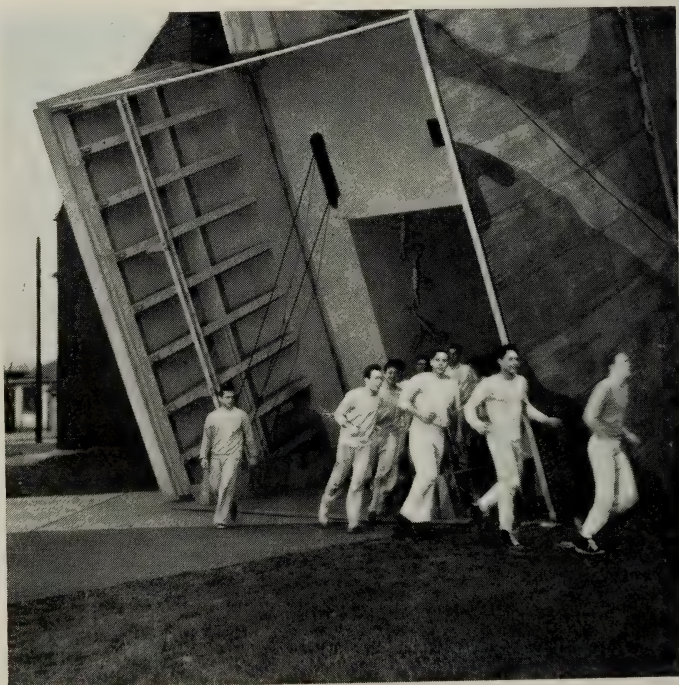
PHYSICAL EDUCATION FOR MEN

- 20. ADAPTED SPORTS.—Open only to students who are assigned by the Health Service.
- 22. BADMINTON AND HANDBALL.
- 23. VOLLEYBALL.
- 25. INDIVIDUAL TUMBLING.
- 27. APPARATUS STUNTS.
- 28. BOXING.
- 29. WRESTLING.
- 53. WEIGHT LIFTING.
- 60. BASIC PHYSICAL FITNESS.

PHYSICAL EDUCATION FOR WOMEN

- 51. ELEMENTARY RHYTHMS.
- 52. INTERMEDIATE RHYTHMS.
- 56. PRESCRIBED ACTIVITIES.—Open only to students assigned by the Health Service.
- 58. TEAM SPORTS.—Fall Semester: Volleyball, Basketball; Spring Semester: Volleyball, Tennis.
- 60. INDIVIDUAL SPORTS.—Badminton, Golf.
- 72. BASIC PHYSICAL FITNESS.

Entrance to Gymnasium



DIVISION OF SPECIAL SERVICES FOR WAR VETERANS

THE UNIVERSITY established the Division of Special Services for War Veterans as an agency with one chief function—to assist the veteran in returning to civilian life. To perform this function adequately, the Division offers its help both to those who are now veterans and to those who are still in the services.

The Division can supply information about the various services of the University. It can give advice on matters of educational aids and adjustments. It can help the veteran to secure those benefits to which he is entitled by directing him to the sources of such benefits and assisting him in finding the proper procedures to be followed to obtain them with the least delay.

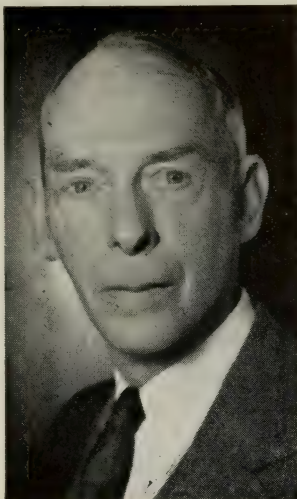
The Division can help the veterans to find in the curricula now offered by the schools and colleges of the University the programs which they need and want. It will assist them in obtaining such needed or desirable revisions of existing programs as can be agreed to by the college administering these programs. The Division will furthermore assist them in obtaining consideration when faced with requirements which their period in service has made unduly difficult or impossible for them to meet.

In the event there should be veterans whose needs can not be met by the established curricula, and the veteran requests a special program, the Division of Special Services for War Veterans will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran. All such programs shall be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at Navy Pier the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to Warren O. Brown, Veterans Counselor, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.



Veterans on Way to Class



Edwin A. Wolleson
Dean of Students

DEAN OF STUDENTS

THE DEAN OF STUDENTS is responsible for student life and welfare outside the classroom. He has as his principal assistants the Dean of Men (student employment, hospitalization insurance benefits), the Dean of Women, the Director of the University Health Service (physical examinations, medical advisor, and inspector of sanitation), and the Director of Physical Education (physical education classes and intramural program).

The Dean of Students is charged with the direction, supervision, and coordination of numerous University offices and agencies which work in the field of student life and which are active in the guidance of students in nonacademic activities which contribute to scholastic attainment. He is also in touch with local agencies with a view to encouraging students to take advantage of the cultural opportunities available to them in metropolitan Chicago. As the officer primarily interested in student extracurricular affairs, the Dean of Students is Secretary of the Faculty Executive Committee on Student Affairs, which is the official policy-making and legislative body responsible to the Executive Dean for conduct of recognized extracurricular activities of students on or off the campus.

The Dean of Students, E. A. Wolleson, is available for individual conferences.

DEAN OF WOMEN

THE OFFICE OF THE DEAN OF WOMEN is the clearing place for the problems of undergraduate women. Students are urged to come with questions that inevitably arise—social, academic, or financial. In addition to the daily counseling of individuals, the Dean of Women is chairman of the Faculty Administrative Committee for Social Events and Recreation.



Miss Ruth E. Leitch
Dean of Women

DEAN OF MEN

THE OFFICE OF THE DEAN OF MEN is organized for the purpose of aiding men students. The Dean not only gives advice and guidance, but also directs students to other administrative offices of the University which are organized to deal specifically with various matters of student welfare. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to present to him. He is well informed on matters having to do with registration, student employment, hospital and medical benefits, and the many perplexing problems which confront the new student. New students are urged to come to the office of the Dean of Men as soon as they arrive at the Pier.

The Student Employment Division which is under the supervision of the Dean of Men will assist students with contacts for employment, both in connection with the University and with industry and business establishments in the City of Chicago. (Additional information is given under the "Student Employment" section.)

The Hospital and Medical Service plan, under the supervision of the Dean of Men, is arranged to give the greatest benefits to the student who becomes hospitalized while enrolled at the University. (For further details refer to the explanation under Hospitalization and Medical Service.)



Warren O. Brown
Acting Dean of Men

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, a limited number of part-time jobs are available in various University offices and departments. Students will be paid at an hourly rate. The University maintains, in the Office of the Dean of Men, a Student Employment Division to assist students with contacts for employment.

The student who expects to be employed should arrange his class schedule and study hours for employment, or seek the type of employment which is suited to his scholastic program. Freshmen in curricula for which laboratory periods occupy most day hours between eight in the morning and five in the afternoon generally find food-service work at meal hours the most convenient and most time-conserving. Students in other curricula may improve their employment opportunities at the time they register by arranging class schedules which leave consecutive hours free each day. The student who desires a part-time position should file an application with the Student Employment Manager, Room 313. Applicants will be interviewed by an experienced interviewer when they apply for work.

SCHOLARSHIPS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition and matriculation fees include: County Scholarships (awarded on competitive examination); General Assembly Scholarships (awarded on nomination of members of the General Assembly); University Scholarships (established by the Board of Trustees); and Military Scholarships (for veterans who were Illinois residents or University students when they enlisted). Certain individuals and organizations have donated funds to be used for cash scholarship awards. These cash awards vary in amount as do the eligibility requirements. For details and application forms for cash scholarship awards apply to the Dean of Students.

Since the majority of students attending the Chicago Undergraduate Division have graduated from Cook County high schools, particular attention is directed to the William J. Cook Fund Scholarship. Applications are initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

STUDENT LOAN FUNDS

LOAN FUNDS are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. The emergency funds are for small loans to be made on short notice, and to be repaid within a short time. The regular funds are for larger loans, and may be carried for a longer time.

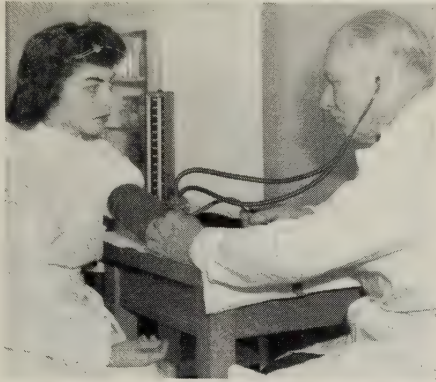
Most of these different funds have special qualifications which must be met by applicants, such as funds for students in certain curricula, of high scholastic standing, or to overseas veterans. Good scholarship, as well as the need of the individual, is a general qualification in all cases. Loans are not ordinarily made to students during their first year in the University or until they have demonstrated their ability. More detailed information regarding loan funds may be obtained from the Office of the Dean of Students, Navy Pier.

HEALTH SERVICE

THE UNIVERSITY maintains a health service for students to promote their physical and mental health, to control communicable disease among them, and to teach them the essentials of healthful living. Members of its staff give instruction in hygiene, conduct physical examinations, supervise food handlers, make sanitary inspections, hold personal conferences with students, and assist them in every way possible in making prompt adjustment. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and referral to competent specialists and practitioners of medicine.

The health service station is located on the third floor at the east end of the Pier.

A Hospitalization and Medical Service is provided for all students enrolling at the University who pay the fee of five dollars each semester. For further details see Hospitalization and Medical Service section.



Physical Exam

HOSPITALIZATION AND MEDICAL SERVICE

A HOSPITALIZATION AND MEDICAL SERVICE FEE of five dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, drugs and dressings. (X-ray is excluded.)

NOTE: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee, may petition through the office of the Dean of Students, for a refund of this fee.

STUDENT PERSONNEL BUREAU

THE SERVICES of the Student Personnel Bureau are available to all University students who wish to make use of individual counseling in facilitating school and other individual adjustments. A staff of experienced counselors can help students verify or discover the relation between their abilities and courses of study for occupations in which they will do best; habits they can acquire or improve in increasing efficiency as a student—in reading rapidly and well, in increasing other study skills, and in modifying habits that have caused difficulty in getting the most done in the least time. The members of the Bureau also are glad to assist students in working through other personal and emotional problems which affect their school work.



Testing Mechanical Ability

Since an objective discussion of abilities, interests, educational background, and personal situation can be of great help in succeeding in and out of school, it is highly desirable for the student to avail himself of these services very soon after registration in the University.

First year students are given a group of Freshman Guidance Examinations administered by the staff of the Student Personnel Bureau prior to the first registration. Scores on these tests constitute important indexes to aptitudes, interests, and abilities. On request, a counselor will gladly assist in evaluating these, and where desirable, other evidences of educational and vocational assets.

These counseling and test services are available at all times to students at the Chicago Undergraduate Division. Whenever a student wishes to talk over any educational, vocational, or other personal problems, he may simply drop in at the Bureau and request an appointment.

The Student Personnel Bureau has its central office in Room 308, on the third floor south, at the extreme east end of the Pier.



Interp
Test
Result



At the Reference Desk

LIBRARY

THE LIBRARY at the Chicago Undergraduate Division is a branch of the 2,000,000-volume University Library on the Urbana campus. The Library undertakes to supply bibliographic materials and services for courses in liberal arts, commerce, engineering, and architecture offered

at the Undergraduate Division. It also supplies many items of broad cultural and recreational interest.

Special emphasis is placed on general reference service, in addition to the circulation and reserve book services. The Library will not attempt to duplicate any of the extensive scholarly research facilities already available in the city.

The Library will consist of 40,000 selected volumes within the next few years, and nearly 10,000 volumes (including 1,400 on deposit from the Chicago Public Library) are already on the shelves. Until the Library grows to full size, however, members of the faculty and student body may find it necessary also to use the Chicago Public Library and other libraries nearby for reference and circulation purposes.

A complete dictionary card catalog is maintained, and several periodical indexing services are available. The subscription list includes over 200 magazines and journals, a large portion of which will be maintained as permanent bound files.

The Library is located on the second floor at the east end of the Pier. Hours are 7:50 a.m. to 6:30 p.m. Monday through Friday, and 7:50 a.m. to 3:30 p.m. on Saturday. A mimeographed circular describing the Library's circulation rules and procedures can be obtained at the Circulation desk.



Library Scene



Down the Student Cafeteria Line

FOOD SERVICE

IN VIEW of the lack of adequate eating facilities in the immediate vicinity of Navy Pier, the University operates a student cafeteria to provide one-menu, moderately-priced breakfasts and lunches. The cafeteria, located at the east end of the Pier, serves lunches from 11 a.m. to 2 p.m. daily and breakfasts from 7:30 to 10:30 a.m. each day.

In addition, the University operates a dining room for faculty and staff, open from 11 a.m. to 2 p.m. daily. An additional service to students, faculty, and staff are the two soda fountains, one located in the cafeteria and open from 9 a.m. to 5 p.m. each day, and the other in the lounge at the west end of the Pier, open from 7:30 a.m. to 6 p.m. daily.

In the Faculty Dining Room



In the Student Cafeteria





At the Christmas Ball

EXTRACURRICULAR ACTIVITIES

A FACULTY COMMITTEE ON STUDENT AFFAIRS, composed of the Dean of Students, the Dean of Men, the Dean of Women, and three appointed members from each of the three colleges is the official committee exercising control over all extracurricular activities. Ex-officio representation is provided from the Business Office, Physical Plant Department, Physical Education Department, and the Office of Public Information.

The University encourages initiative and tries to develop individual and group responsibility by offering a high degree of autonomy to students in the class and to recognized student organizations. For this purpose a division termed the Student Congress, composed of class and organization representatives, has been developed. The personnel of this organization work closely with the Faculty Executive Committee on Student Affairs in the development of programs and events of an extracurricular nature.

Conference



Students at Work

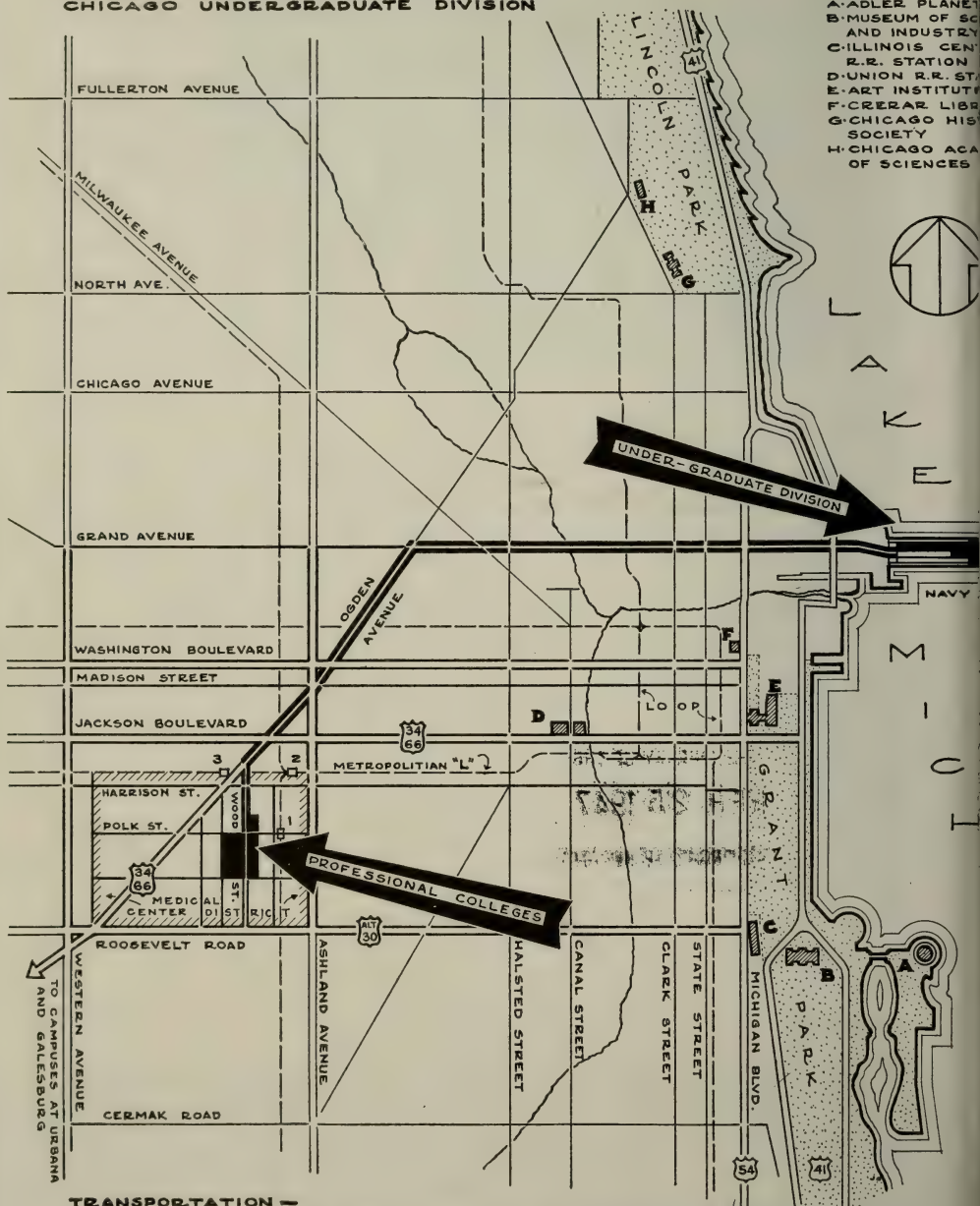


UNIVERSITY OF ILLINOIS

CHICAGO PROFESSIONAL COLLEGES
CHICAGO UNDERGRADUATE DIVISION

LEGEND -

- A-ADLER PLANETARIUM
- B-MUSEUM OF SCIENCE AND INDUSTRY
- C-ILLINOIS CENTRAL R.R. STATION
- D-UNION R.R. STATION
- E-ART INSTITUTE OF CHICAGO
- F-CRERAR LIBRARY
- G-CHICAGO HISTORICAL SOCIETY
- H-CHICAGO ACADEMY OF SCIENCES



TRANSPORTATION -

FEEDER BUS - POLK & WOOD STREETS, TRANSFER GRAND AVE. STREET CAR.
STREET CAR - ASHLAND CAR ON PAULINA ST., TRANSFER GRAND AVENUE.
"L" STATIONS: 1-POLK ST. 2-MARSHFIELD 3-OGDEN AVE., ALL TRAINS TO LOOP,
TRANSFER STONY ISLAND STREET CAR.

UNIVERSITY OF ILLINOIS

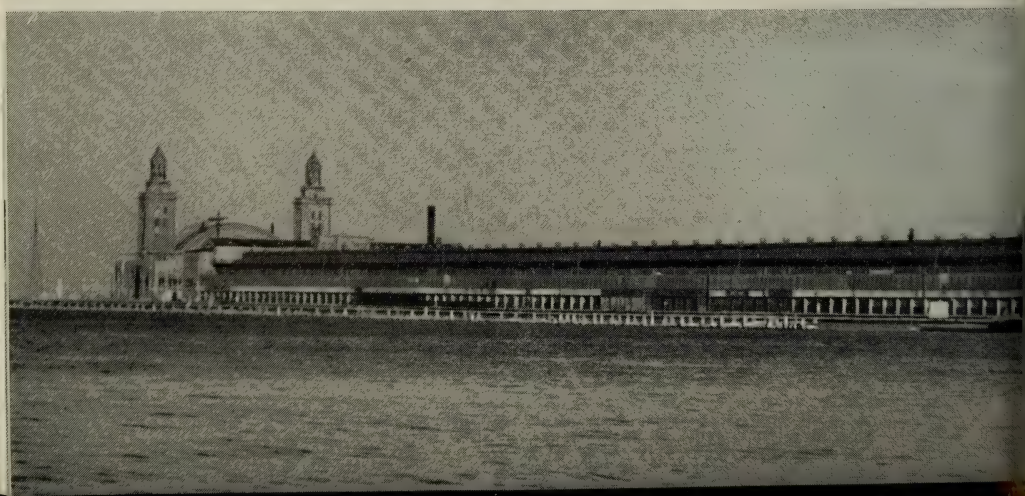
Chicago Undergraduate Division

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NAVY PIER

CATALOG AND HANDBOOK





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CALENDAR

Chicago Undergraduate Division

NAVY PIER

SUMMER SESSION (Eight Weeks)

1947

July 14, Monday — July 15, Tuesday.....Registration
July 16, Wednesday.....Instruction Begins
September 5, Friday — September 6, Saturday.....Summer Session Examinations

FIRST SEMESTER

1947

September 15, Monday — September 18, Thursday.....Registration
September 19, Friday.....Instruction Begins
November 26, Wednesday, 1 p.m.....Thanksgiving Vacation Begins
December 1, Monday, 1 p.m.....Thanksgiving Vacation Ends
December 20, Saturday, 1 p.m.....Christmas Vacation Begins
January 5, Monday, 8 a.m.....Christmas Vacation Ends
January 19, Monday — January 29, Thursday.....Semester Examinations

SECOND SEMESTER

1948

February 9, Monday — February 12, Thursday.....Registration
February 13, Friday.....Instruction Begins
March 25, Thursday, 1 p.m.....Easter Vacation Begins
March 29, Monday, 1 p.m.....Easter Vacation Ends
June 1, Tuesday — June 10, Thursday.....Semester Examinations

SUMMER SESSION (Eight Weeks)

1948

June 21, Monday — June 22, Tuesday.....Registration
June 23, Wednesday.....Instruction Begins
August 11, Wednesday — August 14, Saturday.....Summer Session Examinations

UNIVERSITY OF ILLINOIS

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Charles C. Caveny
Dean

FOREWORD

THE CHICAGO UNDERGRADUATE DIVISION of the University of Illinois was established at Navy Pier as part of the program of the State to meet its share of the national emergency in higher education resulting from the overwhelmingly increased demand, primarily by veterans, for instruction at the University level.

Courses at the freshman and sophomore levels are offered in the College of Liberal Arts and Sciences, the College of Commerce, and the College of Engineering. In addition, architecture and architectural engineering curricula are offered in the College of Fine and Applied Arts.

The program has been organized to provide for 4,000 students. Students who are residents of the State of Illinois are given preference. Courses are identical with those made available in similar fields of undergraduate work on the Urbana campus. Suitable adjustments will be made in the academic program to provide facilities of a semi-professional and technical nature for those students who are qualified to succeed in a terminal program rather than one designed for further studies at the college level.

Every effort is being made to integrate the instructional program with the cultural resources of the City of Chicago so as to provide a superior educational unit. The University, as a public institution, desires that every enrollee shall have the best possible opportunity to develop his individual capacities to their fullest degree.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University's tradition.

CHARLES C. CAVENY
Dean

ADMINISTRATIVE OFFICERS

Chicago Undergraduate Division

NAVY PIER

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HAROLD W. BAILEY.....	Associate Dean College of Liberal Arts and Sciences
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WILLIAM R. WILLIAMS.....	Assistant to the Business Manager
HOWARD I. SCHMITT.....	Assistant Superintendent, Building and Grounds
ROBERT E. KNOX.....	Manager Nonacademic Personnel
JEAN HURT.....	Manager Public Information

GENERAL REQUIREMENTS FOR ADMISSION

Application — Applications for admission in October, 1947, are passed upon under a plan of progressive admission, the details of which may be secured from the Registrar. Veterans who are residents of the State and other residents who are best qualified by previous records are given priority. Resident nonveterans seeking transfer from another institution must present a scholarship average of not less than 3.5 (halfway between B and C). Nonresidents coming directly from secondary schools who rank in the upper 25 per cent of their class, and nonresident transfer students who have not less than a 4.0 (B) scholarship average are considered. To be considered for admission to the Chicago Undergraduate Division, prospective students should have all official high school and college transcripts sent directly to the Registrar's Office, University of Illinois, Chicago Undergraduate Division, Navy Pier Chicago 11, Illinois.

High school seniors, after the middle of their eighth semester, should request their high schools to forward transcripts of work taken during the first seven semesters and supplementary transcripts showing courses in progress, expected grade, and rank in graduating class to the Registrar's Office.

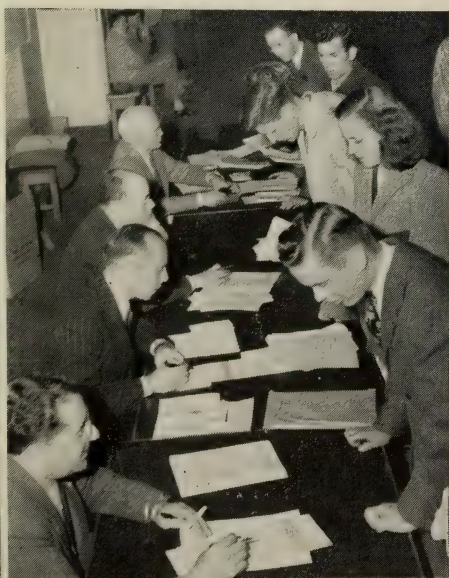
Age — An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian or with someone selected by them.

High School Graduation and Scholarship — An applicant for admission to the University must be a graduate of an accredited secondary school to be admitted by a certificate of graduation. An applicant whose rank in scholarship is in the upper three-quarters of his graduating class and who meets the requirements as stated below is admitted by certificate to full freshman standing. Furthermore, the Registrar is authorized to admit, without adhering to the

usual requirements as they pertain to majors and minors, an applicant whose rank in scholarship is in the upper fifty per cent of his graduating class. Such a student, however, must present those specific high school courses that are prerequisite to courses in the curriculum which he desires to follow in the University.

A graduate of an accredited high school whose rank in scholarship is in the lowest quarter of his graduating class and who meets the requirements as stated below is admitted by certificate to probationary status and, in connection with his first registration in the University, is required to take such tests as

Registration Day Advisers



may be prescribed by the Student Personnel Bureau. Such a student, immediately upon registration, is placed under the special supervision of the dean of the college in which he is enrolled. He may be required by the dean or director to carry a reduced program of work or a program especially arranged to meet his needs.

Graduates of Unaccredited Secondary Schools—The Registrar is authorized to admit a student who is a graduate of an unaccredited secondary school and whose general scholarship rank is in the upper twenty-five per cent of his graduating class, subject to his passing examinations at the University in advance of admission in: (1) English composition and rhetoric; and (2) other high school subjects necessary to complete the requirements.

DEFINITIONS

A *unit* in the secondary school is a course covering an academic year and including not less than the equivalent of 120 clock hours of classroom work.

A *major* is three unit courses in one field.

A *minor* is two unit courses in one field.

Fifteen units of acceptable secondary school work are required, including:

(A) Two majors and one minor, selected from Groups 1-5 on page 11. *One of the majors must be English.*

(B) A total of at least nine units from the fields of English, foreign language, mathematics, science, and social studies, including preparation amounting to a major or minor sequence in at least three different fields.

(C) All subjects required for the curriculum which the applicant desires to enter. (See table on page 10.)

(D) Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards. Fractional credits of less than one-half will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects Required</i>	<i>Subjects Recommended</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, Entomology, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾</p>	<p>Language, 3 units in one language, instead of the required 2 units.</p> <p>Science, 2 units (including biology).</p> <p>Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine.⁽⁴⁾</p> <p>Pre-teacher Training Curricula.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Mathematics, 3 units, instead of the required 2 units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units⁽¹⁾ Language, 2 units⁽²⁾ Algebra, 1½ units Geometry, 1 unit</p>	<p>Language, 4 units (including 2 units in French and 2 units in German).</p> <p>Mathematics, 3 units, instead of the required 2½ units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p>
<p style="text-align: center;">COLLEGE OF COMMERCE</p> <p>All fields (Accountancy, Banking and Finance, Commerce and Law, Economics).</p>	<p>English, 3 units⁽¹⁾ Algebra, 1 unit Geometry, 1 unit</p>	<p>Advanced algebra, 1½ units.</p> <p>Science, 2 units (including 1 unit with laboratory).</p>
<p style="text-align: center;">COLLEGE OF ENGINEERING</p> <p>All Curricula (Aeronautical, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).</p> <p>Curricula in Architecture and Architectural Engineering.</p>	<p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Plane Geometry, 1 unit Solid Geometry, ½ unit⁽³⁾</p> <p>English, 3 units⁽¹⁾ Algebra, 1½ units⁽³⁾ Geometry, 1 unit Solid Geometry, ½ unit⁽³⁾</p>	<p>Language, 2 units.</p> <p>Science, 2 units (including physics or chemistry or both).</p> <p>Social Studies, 2 units.</p> <p>Industrial Arts, 2 units.</p> <p>Freehand Drawing, 1 unit.</p> <p>Science, 2 units (including physics and chemistry).</p> <p>Social Studies, 2 units (including economics and history).</p>

(1), (2), (3), (4) See page 11 for additional description.

MAJORS AND MINORS

The required majors and minors defined on page 9 may be selected from the following five groups: (1) English — (In all cases one major must be in English.) Only courses in history and appreciation of literature, composition (including oral composition as a part of a basic English course), and grammar will count toward a major. (2) Foreign Language — Three units in one language constitute a major. Two units in one language constitute a minor. (3) Mathematics — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases where the content of the course is essentially the same as that ordinarily included in algebra and geometry.) (4) Science — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology.) The three units required for a major must include at least one unit from the above subjects. (5) Social Studies — (Including history, civics, economics, commercial or economic geography, and sociology.) The three units required for a major must include at least two units in history. The two required for a minor must include at least one unit in history.

(1) ENGLISH

Only courses in history and appreciation of literature, and in composition (including oral composition as a part of a basic English course), and grammar, will count toward the three units in English required as a major for admission to all curricula. Four units in English, while not required for any curriculum, are recommended by all the colleges and schools.

(2) LANGUAGE

The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, Spanish, Italian, Latin, Greek. For some curricula three units in one language are recommended, and for some it is advantageous to have four units in one language or a combination of languages. Less than one unit in a language is not acceptable for admission.

(3) MATHEMATICS

In Engineering or Architecture where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence. Where one unit in algebra and one unit in geometry are required for admission, general mathematics will be accepted if the content of the course is essentially the same as that ordinarily included in algebra and plane geometry. For all curricula involving chemistry (to which one unit in physics or chemistry or $2\frac{1}{2}$ units in mathematics are prerequisite), students without credit in physics or chemistry who have only two units in mathematics will be required to take college algebra.

(4) PRE-MEDICAL REQUIREMENT

A student entering the pre-medical curriculum as a freshman must have a scholarship rank in the upper half of his high school graduating class. A student transferring to this curriculum from another college or university must have a scholastic average in his collegiate work not less than 3.5 in terms of the grading system of the University of Illinois.

VETERANS' REGISTRATION INFORMATION

Veterans may enter the University in any of the colleges for which they have the essential prerequisites. They may qualify for admission under the entrance requirements described on pages 10 and 11 or on the basis of previous work in college, graduation from high school, the passing of examinations, or other satisfactory demonstration of ability to carry college work.

All high school and college credentials should be sent to the Registrar's Office, Chicago Undergraduate Division, Navy Pier, for evaluation. Honorable discharge papers and credentials showing special training courses completed in the armed services should be presented to the Registrar's Office to determine what credit, if any, may be allowed.

The presentation of a Certificate of Eligibility and Entitlement will enable veterans to register and to receive books and supplies under the G.I. Bill. With this Certificate the only fee charged in cash will be the General Deposit fee required of all students. Without this Certificate, veterans will be responsible for their own tuition fees and books. A rebate will be made when the Certificate is secured. This Certificate is also necessary in order to receive monthly subsistence payments for veterans in training under the G.I. Bill.

Application for a Certificate of Eligibility should be made to the office of the Veterans Administration, 366 W. Adams St., Chicago. Service records showing separation from the armed forces or terminal leave orders and AGC Form 100 or NAVPERS 554 should be presented to the Veterans Administration, since evidence of discharge from service is required at the time application is filed.

Upon receiving a permit to enter the Chicago Undergraduate Division veterans should submit Certificates of Eligibility to Miss Ruth M. Farnham, Veterans' Benefits Administrator, Room 15, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.

Veterans who have previously used a Certificate of Eligibility under the G.I. Bill, or a Letter of Authorization under the Vocational Rehabilitation Act, should make arrangements at the office of the Veterans Administration to be issued revised authorizations to be presented to the Chicago Undergraduate Division. Temporary revised Certificates of Eligibility are acceptable pending receipt of the regular revised form.

Students transferring to the Chicago Undergraduate Division from the Urbana campus or the Galesburg campus are responsible for requesting transfer of their Certificates of Eligibility to Navy Pier. Certificates of Eligibility are *not* transferred with academic records.

To request a transfer of Certificates, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration (W), University of Illinois, Urbana, Illinois; or Mr. C. R. Wayman, Division of Special Service for War Veterans, Galesburg Undergraduate Division, Galesburg, Illinois.

Students receiving educational benefits under the Vocational Rehabilitation Act should be certain that there is an authorization for their training on file at the University by the time they are to register.

An authorization under which veterans may receive books and supplies is available to veterans. This form is issued following registration, provided that a Certificate of Eligibility or an authorization for Vocational Rehabilitation training is on file in the Division of Special Services for War Veterans.

FEES

Chicago Undergraduate Division

TUITION FEE — All state residents, except those holding scholarships, pay each semester a tuition fee of.....\$40.00

Students not residents of Illinois pay each semester a tuition fee of. .\$.80.00

HOSPITAL AND MEDICAL SERVICE FEE — All students, except those taking not more than five hours of undergraduate work in a semester, pay each semester as insurance for hospital and medical service, a fee of.....\$ 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE — Students taking more than eight hours pay each semester a laboratory, library, and supply fee of.....\$ 8.00

(Students taking less than eight hours pay \$2.50 each semester)

STUDENT ACTIVITY SERVICE CHARGE.....\$ 4.00

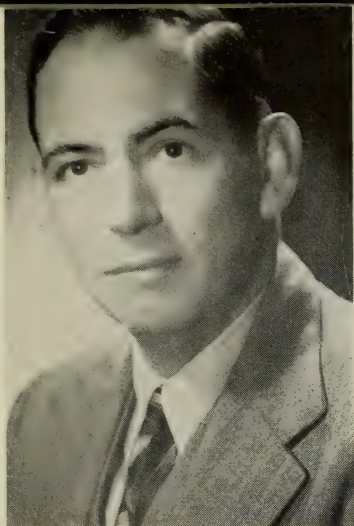
DEPOSITS — Each student, at the time of his first registration, must make a deposit of \$5, against which such items as unreturned towels and locks, lost library books, library fines, and shortages in laboratory equipment are charged. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately by additional deposit to bring the total up to \$5. Any balance in deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD — Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, lockers, towels, and other equipment.

FEES FOR THE EIGHT-WEEK SUMMER SESSION

Students registering for the eight-week summer session pay fees as listed above except that the tuition fee for residents of Illinois is \$20, and for non-residents, \$40; laboratory, library, and supply fee, \$4; hospital and medical service fee, \$2.50; student activity service charge, \$1. A matriculation fee of \$10 will be charged students who enter the University of Illinois for the first time at the 1947 summer session. This fee will not be charged to those students attending the summer session only.

Students registering in courses totaling four semester hours or less pay \$3 a credit hour if residents of Illinois, or \$6 a credit hour if nonresidents, instead of the usual fee for eight weeks of instruction.



Harold W. Bailey
Associate Dean

COLLEGE OF LIBERAL ARTS AND SCIENCES

THE GENERAL CURRICULUM in the College of Liberal Arts and Sciences offered at the Chicago Undergraduate Division is aimed at giving the student a well-balanced intellectual development. It provides the resources for a liberal education, which emphasizes subjects leading to a general knowledge and interpretation of the cultures of both the past and present. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Students in this curriculum are encouraged to develop interest and talents supplementing their major subjects.

The first two years of undergraduate work are offered in the following fields: Pre-teacher training; Pre-law; Pre-journalism; Chemistry and Chemical Engineering; Pre-medicine; and Pre-dentistry.

GENERAL CURRICULUM IN LIBERAL ARTS AND SCIENCES

For the Degree of Bachelor of Arts (or Bachelor of Science)

Because of the wide range of courses open to students in the general curriculum of Liberal Arts and Sciences, it is not feasible to specify the definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of advisers, each student is expected to plan his own program within the general requirements outlined below. This general outline indicates the ordinary procedure in fulfilling the requirements for the degree of Bachelor of Arts, or for the optional degree of Bachelor of Science.

Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the general University requirements with respect to registration, residence, fees, hygiene, military science, physical education, and rhetoric, and must obtain credit, with a satisfactory scholastic average, in approved courses totaling at least 120 semester hours, not counting credit earned for the first two years of work in military science and physical education. In securing this credit, each candidate must have an average of not less than "C" (3.) in all grades received, including grades in courses transferred from other institutions, and excluding those received in the first two years of work in military science and physical education, and must not have grades below "C" in more than one-fourth of the total number of semester hours earned. (*Note:* Grades in advanced military courses and in the addi-

tional physical education courses required of men are included in the average.) In computing the grade-point average, weighted values are given to the grades as follows: A = 5 grade points; B = 4; C = 3; D = 2; E (failure) = 1. The individual grades are multiplied by the respective number of semester hours which each represents and the sum of these products is divided by the total number of semester hours taken.

Optional Degree of Bachelor of Science.—The degree of Bachelor of Science, instead of the degree of Bachelor of Arts, is granted to students whose major is in mathematics, a science, or home economics, upon petition to the dean of this college not later than March 1 if the degree is to be received in June, August 1 if it is to be received in October, or December 1 if it is to be received in February.

A. Prescribed subjects:

To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirements are completed. (See group requirements below.)

1. *Hygiene.*—One semester. Credit may be obtained by a proficiency examination.
2. *Physical Education.*—Four semesters. (Men under 30 years of age are required to register each semester in physical education unless exempted by the Dean of the College or the Health Service.)
3. *Rhetoric.*—Two semesters (Rhetoric 1 and 2). The quality of work acceptable in the fulfillment of this requirement must satisfy the general University regulations concerning rhetoric.
4. *Foreign Language.*—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 2b, German 5 or 6, Greek 4, Italian 2b, Latin 1b, Portuguese 2b, Spanish 2b, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. *Note:* No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. (Students planning to enter the Graduate School are advised to obtain a reading knowledge of both French and German.)

In the Classroom



B. Group requirements:

To be begun in the freshman year and completed before the senior year. Proficiency examinations may be taken for credit in some of these subjects.

I. For students who entered prior to September 1, 1946:

1. *Liberal Arts*.—A total of 15 hours chosen from at least three of the following subjects, including one course in English or foreign literature, or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work, or its equivalent), economics, history, philosophy, political science, and sociology.
2. *Sciences*.—A total of 15 hours chosen from at least three of the following subjects, including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.

NOTE.—Any student who has completed the six courses prescribed by the Division of General Studies will have satisfied all the group requirements of the general curriculum in the College of Liberal Arts and Sciences.

II. For students who enter after September 1, 1946:

1. *Basic Knowledge*.—Students who enter the general curriculum in liberal arts and sciences as freshmen after September 1, 1946 (or who enter other schools after that date and subsequently transfer to the College), must, in addition to the present requirements in English, hygiene, and foreign language, meet new requirements of three hours in History of the United States, and six hours in mathematics. The new requirements may be satisfied by courses taken in high school.
2. *General Education*.—The present "group requirements" will be replaced by the requirement of a two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) Humanities; (b) Biological Science; (c) Physical Science; (d) Social Science.

Electives

1. *Liberal Arts and Sciences*.—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*.—Electives totaling as much as (but not more than) 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity to the following list approved by the faculty:

Accountancy.—A total of 6 hours (not including more than one of the following courses: Accountancy 1a, 1e, 12).

Agricultural Economics.—A total of 6 hours.

Architecture.—A total of 15 hours.

Art.—A total of 15 hours.

Business Law.—A total of 6 hours.

Business Organization and Operation.—A total of 6 hours. 12a-12b (Typewriting) and 13a-13b (Shorthand) may not be offered for credit.

Economics.—All courses.

Education.—A total of 20 hours.

Engineering.—A total of 10 hours in the College of Engineering.

Forestry.—3 hours.

Home Economics.—All courses.

Horticulture.—A total of 6 hours.

Hygiene.—Hygiene 2 or 5 (2 hours). Hygiene 8 is accepted in addition to the required two hours of credit.

Journalism.—A total of 10 hours.

Landscape Architecture.—A total of 7 hours.

Law.—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken, with the advice of the dean of the College of Law, and provided further that if any such student desires to take more than 6 hours of law work he must also register in the College of Law.

Library Science.—A total of 10 hours.

Military Science.—A total of 8 hours in advanced courses.

Music.—A total of 15 hours approved by the director of the School.

Physics.—All courses.

CHEMISTRY AND CHEMICAL ENGINEERING

The following curricula in chemistry and chemical engineering afford more specialized training than is required of students who make chemistry their major subject in the general curriculum of liberal arts and sciences.

The minimum language requirement for graduation in these curricula is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum. Students entering with two units of credit for German or French (two units in high school being equivalent to one year in college) should complete this minimum requirement in their freshman year. Those entering with less than two units in German or French should complete this requirement in their sophomore year or as early as possible.

Students in these curricula should note that registration in chemistry courses other than those open to freshmen and a few of those open to sophomores is restricted to students who have a grade-point average of 3.5.

CURRICULUM IN CHEMISTRY

For the Degree of Bachelor of Science in Chemistry

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 1 or 2—Inorganic Chemistry...	5	Chem. 6—Inorganic Chemistry.....	5
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Plane Trigonometry.....	2	German or French.....	4
German or French.....	4	Rhet. 2—Rhetoric and Composition...	3
Rhet. 1—Rhetoric and Composition...	3	Hygiene 2 or 5—Hygiene and Sanitation.....	2
Physical Education.....	—	Physical Education.....	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 10—Qualitative Analysis.....	5	Chem. 24—Quantitative Analysis.....	5
Math. 8a—Differential Calculus.....	3	Math. 8b—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	—	Physical Education.....	—
Electives ¹	3	Electives ¹	2
<i>Total</i>	16	<i>Total</i>	15

¹ Suggested courses for electives are: Zoology 1, 2, 7; Botany 1a, 1b; English 20a, 20b; Zoology 20, 43; History 3a, 3b; Bacteriology 5a, 5b; German or French. Of the total electives for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute courses in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

CURRICULUM IN CHEMICAL ENGINEERING

For the Degree of Bachelor of Science in Chemical Engineering

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 1 or 2—Inorganic Chemistry...5		Chem. 6—Inorganic Chemistry.....5	
Math. 2—College Algebra.....3		Math. 6a—Analytic Geometry.....4	
Math. 4—Plane Trigonometry.....2		German or French.....4	
German or French.....4		Rhet. 2—Rhetoric and Composition...3	
Rhet. 1—Rhetoric and Composition...3		Hygiene 2 or 5—Hygiene and Sanitation.....2	
Physical Education.....		Physical Education.....	
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 10—Qualitative Analysis.....5		Chem. 24—Quantitative Analysis.....5	
Math. 8a—Differential Calculus.....3		Math. 8b—Integral Calculus.....3	
Phys. 1a—General Physics.....4		Phys. 1b—General Physics.....4	
Phys. 3a—Physics Laboratory.....1		Phys. 3b—Physics Laboratory.....1	
G.E.D. 6—Elements of Drawing.....3		T.A.M. 1—Analytical Mechanics.....2	
Physical Education.....		Physical Education.....	
<i>Total</i>	16	<i>Total</i>	15

MEDICINE AND DENTISTRY

The pre-medical curriculum outlined below includes the first two years' work of the courses required for admission to the College of Medicine.

The work covered also enables students to meet the requirements for admission to the College of Dentistry.

Pre-Medical Curriculum

This curriculum, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

A student transferring to this college with advanced standing must have maintained at least a 3.5 scholastic average, in terms of the University grading system, in order to be admitted to the pre-medical curriculum.

At the end of each semester the scholastic averages of all students enrolled in the pre-medical curriculum are computed. Students whose scholastic average at the time of computation is below the 3.5 average required for admission to the College of Medicine are denied further registration in this curriculum until such a time as they may have improved their average to this minimum.

Students who meet the language and Liberal Arts group requirements and who complete three years of the pre-medical curriculum and the first year in the College of Medicine, receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences. No student may receive credit toward this degree for more than one year of work done in any other college or university.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Zool. 1—General Zoology.....5		Zool. 2—Vertebrate Zoology.....5	
Chem. 1 or 2 ¹ —General Chem.....5 or 3		Chem. 5—Inorganic Chemistry.....5	
Hygiene 2 or 5—Hygiene and Sanitation.....2		Math. 4 or 4a ² —Trigonometry.....2 or 3	
Physical Education.....		Physical Education.....	
Electives.....	0-3	Electives.....	0-3
<i>Total</i>	15-18	<i>Total</i>	15-18

Second Year

Phys. 7a and 8a—General Physics....5		Phys. 7b and 8b—General Physics....5	
Modern Language ³4		Modern Language ³4	
Chem. 22—Quantitative Analysis; or		Chem. 22—Quantitative Analysis; or	
Chem. 33—Organic Chemistry.....5		Chem. 33—Organic Chemistry.....5	
Physical Education.....		Physical Education.....	
Electives ⁴	2-4	Electives ⁴	2-4
<i>Total</i>	16-18	<i>Total</i>	16-18

TEACHER TRAINING CURRICULA

Of the curricula in teacher training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division, as follows: Biology, Chemistry, English, French, Geography, German, Mathematics, Mathematics and Physical Sciences, Physics, Social Studies, Spanish, and Speech. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

Prospective students in teacher training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

¹ Students having credit for chemistry in high school will register for Chemistry 2 (three hours).

² Mathematics 4, Trigonometry, which is a prerequisite for physics in the sophomore year, may be taken in either the first or second semester of the freshman year, or may be replaced by an elective if the student has credit for trigonometry in high school. Mathematics 4a (three hours) will be substituted by students who have only two units of mathematics in high school.

³ German, French, Spanish, etc. Two semesters of a modern language at the college level are required for admission to the medical school. The equivalent of two years of college work in a foreign language is required of students who are candidates for the bachelor's degree in the combined curriculum. (See Prescribed Subjects, Item 4, page 15.)

⁴ Electives in the second and third years should be arranged to satisfy the requirements for admission to the medical school which the student expects to enter. The College of Medicine of the University of Illinois requires fourteen semester hours from at least two of the following: economics, history, philosophy, political science, psychology, sociology.

COURSES OF INSTRUCTION

(The credit value of each course is given in parenthesis after the title of the course.)

BACTERIOLOGY

- 5a. INTRODUCTORY BACTERIOLOGY.—(3). Bacteria, yeasts, and molds; structure morphology, and systematic relationships; general sanitation, communicable diseases, etc. Designed to accompany Bacteriology 5b, but may be elected without it. *Prerequisite*: Sophomore standing or consent of instructor.
- 5b. INTRODUCTORY BACTERIOLOGY LABORATORY.—(2). Morphology and physiology of bacteria and related microorganisms, preparation of media and apparatus, staining, cultivation. Designed to accompany Bacteriology 5a. *Prerequisite*: Bacteriology 5a, or concurrent registration therein.

BOTANY

- 1a. INTRODUCTORY BOTANY.—(3). Relation of the plant world to the physical and animal worlds; progressive development of the plant and its evolutionary significance; its part in the formation of soils, the production of food and the maintenance of life. Lectures and demonstrational quiz. Designed to accompany Botany 1b, but may be elected without it.
- 1b. INTRODUCTORY BOTANY LABORATORY.—(2). Morphology, physiology, and ecology of representative groups of the plant world. *Prerequisite*: Botany 1a, or concurrent registration therein.
16. ECONOMIC BOTANY.—(3). Uses of plants and plant products by man; origin of cultivated plants and their relation to human history. *Prerequisite*: Botany 1a or 1b.

CHEMISTRY

1. INORGANIC CHEMISTRY.—(5). For students who have no entrance credit for high school chemistry. *Prerequisite*: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 2 or 3.
2. INORGANIC CHEMISTRY.—(3). Lectures, recitations, and laboratory. For all students who have had one year of high school chemistry. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 2 if they complete the course with a grade of "C" or higher. Students who have failed in Chemistry 1 are permitted to register for Chemistry 2 and will receive five hours credit if their final grade is "C" or higher. *Prerequisite*: One unit of entrance credit in chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1 or 3.
3. INORGANIC CHEMISTRY.—(4). Lectures, recitations, and laboratory. For engineering students who have had no chemistry. Students who have received credit in high school chemistry are given only three hours credit.
4. CHEMISTRY OF THE METALLIC ELEMENTS.—(4). Lectures, recitations, and laboratory. Limited to students in the engineering curriculum. Credit in Chemistry 4 will not be granted to students who have received credit in Chemistry 5 or Chemistry 6. *Prerequisite*: Chemistry 1, 2, or 3.
5. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.—(5). Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 4 or 6. Credit in Chemistry 5 will not be granted to students who have received credit in Chemistry 4 or Chemistry 6. *Prerequisite*: Chemistry 1, 2, or 3.
6. INORGANIC CHEMISTRY.—(5). Metallic elements. For students in the curriculum of chemistry, and chemistry majors who are not pre-medics. Credit in Chemistry 6 will not be granted to students who have received credit in Chemistry 4 or Chemistry 5. *Prerequisite*: Chemistry 1, 2, or 3.

10. QUALITATIVE ANALYSIS.—(5). Qualitative analysis of metals and inorganic compounds. Required of students whose major is chemistry and those registered in the curriculum of chemistry or chemical engineering. *Prerequisite*: Chemistry 6.
22. ELEMENTARY QUANTITATIVE ANALYSIS.—(5). Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. Lectures, recitations, and laboratory. *Prerequisite*: Chemistry 4 or 5. For students in pre-medical courses and all others who have not followed the sequence Chemistry 1, 2 or 3, 6, and 10.
24. QUANTITATIVE ANALYSIS.—(5). Gravimetric and volumetric analysis, modern advanced theory and practice. Lectures, recitations, and laboratory. *Prerequisite*: Chemistry 10.
33. ELEMENTARY ORGANIC CHEMISTRY.—(5). For pre-medical students. Important compounds of carbon. Lectures, recitations, and laboratory. *Prerequisite*: Chemistry 5 or 10.
34. ORGANIC CHEMISTRY.—(5). For students whose major is chemistry or for those registered in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. *Prerequisite*: Chemistry 6, 10, and 24.

ENGLISH

- 10a. TYPES OF POETRY.—(3). Intended primarily for those who expect to do considerable work in literature, in English or in any other language. Credit is not given for English 11a or 11b in addition to English 10a, or for any of these courses in addition to English 20a and 20b. *Prerequisite*: Minimum entrance requirements in English.
- 10b. STUDY OF DRAMA.—(3). See note under English 10a. *Prerequisite*: English 10a or 11a.
- 11a. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite*: Minimum entrance requirement in English.
- 11b. CHRONOLOGICAL STUDY OF MASTERPIECES.—(3). See note under English 10a. *Prerequisite*: English 11a.
2. AMERICAN LITERATURE.—(2). *Prerequisite*: Sophomore standing or exemption from Rhetoric 2.
3. AMERICAN LITERATURE.—(2). *Prerequisite*: Sophomore standing, or exemption from Rhetoric 2.
- 10a. CHIEF ENGLISH WRITERS OF THE 19TH CENTURY.—(4). Nineteenth-century men of letters on religion, politics, economics, conduct and social life. For students in professional and technical courses. Credit is not given for English 20a in addition to English 10a-10b or 11a-11b. *Prerequisite*: Sophomore standing.
- 10b. CHIEF ENGLISH WRITERS BEFORE 1800.—(4). Credit is not given for English 20b in addition to English 10a-10b or 11a-11b. *Prerequisite*: English 20a.
3. INTRODUCTION TO SHAKESPEARE.—(3). *Prerequisite*: Sophomore standing or exemption from Rhetoric 2.

Rhetoric

- RHETORIC AND COMPOSITION.—(No credit). Open to students who fail the placement test for admission to Rhetoric 1. Intensive review of fundamentals, with considerable practice in composition. Students passing the course will be admitted to Rhetoric 1 without further examination.
- RHETORIC AND COMPOSITION.—(3). This course provides elementary training and practice in the comprehension and in the expression of both written and oral English. *Prerequisite*: A passing grade on the Rhetoric 1 placement examination or a passing grade in Rhetoric 0. Rhetoric 1 and 2 are not counted toward a major in English.

2. RHETORIC AND COMPOSITION.—(3). See note under Rhetoric 1. *Prerequisite:* Rhetoric 1 or exemption from Rhetoric 1.
3. EXPOSITION.—(3). *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
4. NARRATION AND DESCRIPTION.—(3). Elements of narrative writing. *Prerequisite:* Rhetoric 1 and 2; sophomore standing.
5. RHETORIC AND COMPOSITION.—(3). Required of students who fail the qualifying examination.
10. BUSINESS LETTER WRITING.—(2). This course is not counted toward a major in English. *Prerequisite:* Rhetoric 1 and 2.

Speech

1. PRINCIPLES OF EFFECTIVE SPEAKING.—(3). Speech composition, delivery, how to hold the attention and interest of the audience. Short expository and argumentative talks on selected topics. Open to freshmen.
2. BUSINESS AND PROFESSIONAL SPEAKING.—(2). Persuasion, composition, and delivery of common types of business and semi-public addresses. *Prerequisite:* Speech 1 and sophomore standing.
10. ORAL INTERPRETATION OF LITERATURE.—(2). Principles of interpretation; analysis and oral reading of prose literature and verse. Open to freshmen.

FRENCH

- 1a. ELEMENTARY FRENCH.—(4). Grammar, pronunciation, reading of modern authors, composition, conversation. No credit toward graduation is given for French 1a without French 1b.
- 1b. ELEMENTARY FRENCH (CONTINUED).—(4). *Prerequisite:* French 1a, or one year of high school French.
- 2a. MODERN FRENCH.—(4). Rapid reading of modern authors; syntax and composition. *Prerequisite:* French 1b, or two years of high school French.
- 2b. MODERN FRENCH (CONTINUED).—(4). *Prerequisite:* French 2a or three years of high school French.
- 3a. INTRODUCTION TO FRENCH LITERATURE.—(3). *Prerequisite:* French 2b or four years of high school French.

GEOGRAPHY

In Bacteriology Lab



1. ELEMENTS OF GEOGRAPHY.—(5). The geographic point of view; elements of physical landscape; planetary relations, climate climatic regions, land-forms; elements of material culture. Five hours of lecture, discussion, and quiz.
2. ECONOMIC GEOGRAPHY.—(5). Geographic conditions affecting industries, production, and commerce of the world; development and relation of commercial areas to location and availability of resources; markets and transportation routes. *Prerequisite:* Geography 1.
22. GENERAL GEOGRAPHY.—(5). A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the cause and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 1 or 2.

GEOLOGY

1. GENERAL GEOLOGY.—(3). Cultural course. Surface features; agencies and processes of change; development of topographic forms; rocks and minerals; volcanoes, earthquakes, mountain-making forces; introduction to the history of the earth and the development of life.
- 1a. GENERAL GEOLOGY LABORATORY.—(2). *Prerequisite:* Geology 1 or concurrent registration therein.
- 2a. HISTORICAL GEOLOGY.—(4). Evolution of the earth and its life. *Prerequisite:* Geology 1.
20. GENERAL MINERALOGY.—(3). Crystallography; minerals of economic and scientific importance; blow-pipe analysis. *Prerequisite:* One semester of chemistry.
43. ENGINEERING GEOLOGY.—(3). *Prerequisite:* Sophomore standing in the College of Engineering.

GERMAN

1. ELEMENTARY GERMAN.—(4). Grammar and reading for beginners. Not open to students who have had high school credit in this language. No credit toward graduation is given for German 1 without German 2.
2. ELEMENTARY COURSE (CONTINUED).—(4). Grammar and reading. *Prerequisite:* German 1, or one year of high school German, or equivalent.
4. INTERMEDIATE COURSE.—(4). Modern narrative prose. Oral practice and sight reading. *Prerequisite:* German 2, or two years of high school German, or equivalent.
5. INTERMEDIATE COURSE (CONTINUED).—(4). Literary reading. Modern narrative prose, but at the option of the instructor one of the easier classical works may also be read. Oral practice and sight reading. *Prerequisite:* German 4, or three years of high school German, or equivalent.

HISTORY

- a. CONTINENTAL EUROPEAN HISTORY TO 1815.—(4). Europe from the age of the great discoveries to the close of the Napoleonic wars.
- b. CONTINENTAL EUROPEAN HISTORY, 1815-1947.—(4). Development of European nationalism, liberalism, and imperialism; World War; reconstruction.
- a. HISTORY OF ENGLAND.—(3). History of the British peoples to the close of the seventeenth century (1688).
- b. HISTORY OF ENGLAND, 1688-1947.—(3). Modern history of the United Kingdom; colonial and imperial development.
- a. HISTORY OF THE UNITED STATES TO 1828.—(3). Colonial foundations, the movement for independence, early years of the Republic. *Prerequisite:* Sophomore standing.
- b. HISTORY OF THE UNITED STATES, 1828-1947.—(3). A century of national life and organizations. *Prerequisite:* Sophomore standing.
- a. THE ANCIENT WORLD.—(3). Ancient empires and Greece. *Prerequisite:* Sophomore standing.
- b. THE ANCIENT WORLD.—(3). Rome. *Prerequisite:* Sophomore standing.

MATHEMATICS

3. ELEMENTARY ALGEBRA FOR VETERANS.—(No credit). For veterans who are not ready for Mathematics 3. Registration follows a placement examination.
- MATH. G. PLANE GEOMETRY FOR VETERANS.—(No credit). Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course.
- SOLID GEOMETRY.—(3). Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. *Prerequisite:* Entrance algebra, 1 unit; plane geometry, 1 unit.

2. COLLEGE ALGEBRA.—(3). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
3. ALGEBRA.—(5). Students having $1\frac{1}{2}$ entrance units in algebra receive only three hours credit. *Prerequisite:* Entrance algebra, 1 unit; Plane geometry, 1 unit.
4. PLANE TRIGONOMETRY.—(2). *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units, or concurrent registration in Mathematics 3.
- 4a. ELEMENTS OF ALGEBRA AND TRIGONOMETRY.—(3). For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 6a. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 4 above. *Prerequisite:* High school algebra, 1 unit.
5. ADVANCED TRIGONOMETRY.—(2). Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, DeMoivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. *Prerequisite:* Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 4 or entrance trigonometry ($\frac{1}{2}$ unit) provided the student can pass placement test to be given in the first two class meetings.
- 6a. ANALYTICAL GEOMETRY.—(4). *Prerequisite:* Mathematics 2 or 3 and Mathematics 4 or 5.
7. CALCULUS.—(5). First course for students of mathematics and engineering. *Prerequisite:* Mathematics 6a.
9. CALCULUS.—(3). Second course for students of mathematics and engineering. *Prerequisite:* Mathematics 7.

PHILOSOPHY

1. INTRODUCTION TO PHILOSOPHY.—(3). *Prerequisite:* Sophomore standing.
2. LOGIC.—(3). Reasoning; detection of fallacies, evidence. *Prerequisite:* Sophomore standing.

PHYSIOLOGY

1. MAMMALIAN PHYSIOLOGY.—(3). Without laboratory.

POLITICAL SCIENCE

- 1a. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS.—(3). Historical development and organization of national and state and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. *Prerequisite:* Sophomore standing.
- 1b. AMERICAN GOVERNMENT: FUNCTIONS.—(3). Functions of national, state and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. *Prerequisite:* Sophomore standing; Political Science 1a or consent of the department.
16. GOVERNMENT IN ILLINOIS.—(2). Only one hour for this course is allowed to students who also take Political Science 1a. *Prerequisite:* Sophomore standing.

PSYCHOLOGY

1. INTRODUCTION TO PSYCHOLOGY.—(4). Essential facts and principles of psychology. *Prerequisite:* Sophomore standing.

2. FIELDS OF PSYCHOLOGY.—(4). The various fields in psychology, with special emphasis on applications. *Prerequisite:* Psychology 1.
21. CHARACTER AND PERSONALITY.—(3). Analysis of the non-intellectual aspects and determinants of mentality and conduct, with special application to behavior problems and personnel psychology. *Prerequisite:* Psychology 1.

SOCIOLOGY

1. PRINCIPLES OF SOCIOLOGY.—(3). *Prerequisite:* Sophomore standing.
2. SOCIAL FACTORS IN PERSONALITY.—(3). Nature of person and relation to institutions, social order, and development. *Prerequisite:* Sociology 1.

SPANISH

- 1a. ELEMENTARY SPANISH.—(4). Grammar, pronunciation, reading, composition, conversation. For students who have had no work in Spanish. No credit for graduation is given for Spanish 1a without Spanish 1b.
- 1b. ELEMENTARY SPANISH (CONTINUED).—(4). *Prerequisite:* Spanish 1a or one year of high school Spanish.
- 2a. MODERN SPANISH.—(4). Rapid reading, review of grammar, composition, conversation. *Prerequisite:* Spanish 1b or two years of high school Spanish.
- 2b. MODERN SPANISH (CONTINUED).—(4). *Prerequisite:* Spanish 2a or three years of high school Spanish.
- 3a. INTRODUCTION TO SPANISH LITERATURE.—(3). Reading of modern authors of Spain and Latin America. *Prerequisite:* Spanish 2b or four years of high school Spanish.
- 3b. INTRODUCTION TO SPANISH LITERATURE (CONTINUED).—(3). See descriptive note under Spanish 3a.

ZOOLOGY

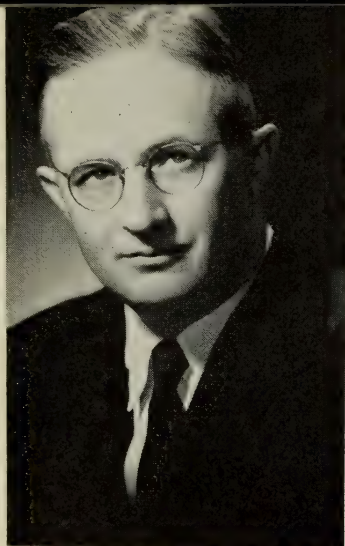
1. GENERAL ZOOLOGY.—(5). Animal biology; structure, function, environmental relations, origin, and development of animals. Lectures, laboratory, and quiz.
2. COMPARATIVE VERTEBRATE ANATOMY.—(5). Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their functions and evolution. Lectures, laboratory, and quiz. *Prerequisite:* Zoology 1. Grade of "C" in Zoology 1 is required of freshmen.



In
Zoology
Lab







Randolph P. Hoelscher
Associate Dean

COLLEGE OF ENGINEERING

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce and government, the College of Engineering provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds. The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. Thus training for the practice of engineering as a profession is supplemented by an understanding of human relationships, and appreciation of economic factors in industrial and public works enterprises, and an insight into regional and national problems of production and distribution of goods.

At the Chicago Undergraduate Division the first two years of courses in the following fields are offered: aeronautical engineering; civil engineering; electrical engineering; mechanical engineering; mining and metallurgical engineering; and engineering physics.

Electives

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences and in the College of Commerce, and the six courses in Engineering numbered 10, 20, 39, 40, 41, and 92. Field survey courses may be used in place of the non-technical and approved electives in any curriculum.

Technical electives include all courses in the College of Engineering not required in the student's curriculum, excepting General Engineering Drawing 1, 2, 4, 6, 7, and 8, and Engineering 10, 20, 39, 40, 41, and 92.

Approved electives include all technical and non-technical electives as defined above and other courses designated as approved electives in the outlines of curricula.

COMMON PROGRAM FOR FRESHMEN

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 2 or 3—Inorganic Chemistry...3 or 4		Chem. 4—Metallic Elements.....4	
G.E.D. 1 or 4—Elements of Drawing...4		G.E.D. 2—Descriptive Geometry....4	
Math. 2—Advanced Algebra.....3		Math. 6a—Analytic Geometry.....4	
Math. 4 or 5—Trigonometry.....2		Rhet. 2—Rhetoric and Composition...3	
Rhet. 1—Rhetoric and Composition...3		Hygiene.....2	
Physical Education.....1		Physical Education.....1	
<i>Total</i>	16-17	<i>Total</i>	18

CURRICULUM IN AERONAUTICAL ENGINEERING

For the Degree of Bachelor of Science in Aeronautical Engineering

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 3—Aircraft Drafting and Lofting.....2		Math. 9—Integral Calculus.....3	
Math. 7—Differential Calculus.....5		M.E. 82—Machine Tool Laboratory..2	
M.E. 81—Pattern, Foundry, and Welding Laboratory.....2		Phys. 1b—General Physics.....4	
Phys. 1a—General Physics.....4		Phys. 3b—Physics Laboratory.....1	
Phys. 3a—Physics Laboratory.....1		Speech 1—Prin. of Effective Speaking 3	
Non-technical Elective.....2		T.A.M. 1 and 2—Analytical Mechanics (Statics and Dynamics).....5	
Physical Education.....1		Physical Education.....1	
<i>Total</i>	17	<i>Total</i>	19

CURRICULUM IN CHEMICAL ENGINEERING

For the Degree of Bachelor of Science in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences.
See page 18.

CURRICULUM IN CIVIL ENGINEERING

For the Degree of Bachelor of Science in Civil Engineering

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 3a—Route Surveying ¹3		C.E. 35—Plain Concrete ²2	
C.E. 60—Bridge and Bldg. Constr....3		C.E. 36—Construction Materials....2	
Math. 7—Differential Calculus.....5		Geol. 43—Engineering Geology ³3	
Phys. 1a—General Physics.....4		Math. 9—Integral Calculus.....3	
Phys. 3a—Physics Laboratory.....1		Phys. 1b—General Physics.....4	
Physical Education.....1		Phys. 3b—Physics Laboratory.....1	
		T.A.M. 1—Analytical Mech. (Statics) 2	
		Physical Education.....1	
<i>Total</i>	17	<i>Total</i>	18

¹ Not given at the Chicago Undergraduate Division.

² To be offered in fall semester of 1947.

³ Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geology 43, 3 hours, and approved and non-technical electives, 5 hours.

CURRICULUM IN ELECTRICAL ENGINEERING

For the Degree of Bachelor of Science in Electrical Engineering

First Year

Common Program for Freshmen (page 29).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
E.E. 20a—Illuminating Engineering and Secondary Power ²	3	E.E. 21—Introduction to electro-dynamics ²	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 87—Machine Tool Laboratory; or Speech 1—Principles of Effective Speaking ³	3	Speech 1—Principles of Effective Speaking; or M.E. 87—Machine Tool Laboratory ⁴	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics) 2	2
		T.A.M. 2—Analyt. Mech. (Dynamics) 3	3
		Physical Education.....	1
<i>Total</i>	<u>18</u>	<i>Total</i>	<u>20</u>

CURRICULUM IN ENGINEERING PHYSICS

For the Degree of Bachelor of Science in Engineering Physics

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the Engineering Physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

First Year

Common Program for Freshmen (page 29), except that substitution of Chem. 6 for Chem. 4 is advised.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective.....	4	German or Approved Elective.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics) 2	2
Approved Elective.....	3	Physical Education.....	1
		Approved Elective.....	3
<i>Total</i>	<u>18</u>	<i>Total</i>	<u>18</u>

¹ Beginning with the second semester of the third year in Electrical Engineering, three options are available: communication and electronics, illumination, or power. Courses in the second year will vary according to the option the student intends to select in the third year (see notes 3 and 4, below).

² To be offered in fall semester of 1947.

³ Students intending to select the option in Illumination take Speech 1.

⁴ Students intending to select the option in Illumination take Physiology 1 or 5.

CURRICULUM IN GENERAL ENGINEERING

For the Degree of Bachelor of Science in General Engineering

This curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to secure a sound education in engineering principles and their application. Fifteen hours work in economics, business law, etc., are required, and twelve hours of free electives are allowed.

First Year

Common Program for Freshmen (page 29).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 2—Principles of Economics.....	3	Geol. 43—Engineering Geology.....	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 85—Pattern and Foundry Lab.; or C.E. 15—General Surveying.....	3	C.E. 15—General Surveying; or M.E. 85—Pattern and Foundry Lab.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics) 2 Physical Education.....	1
<i>Total</i>	<u>17</u>	<i>Total</i>	<u>17</u>

CURRICULUM IN MECHANICAL ENGINEERING

For the Degree of Bachelor of Science in Mechanical Engineering

First Year

Common Program for Freshmen (page 29).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 31a—Mechanism ²	3	Approved Elective ³	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 85—Pattern and Foundry Lab.; or M.E. 87—Machine Tool Lab.....	3	M.E. 87—Machine Tool Lab.; or M.E. 85—Pattern and Foundry Lab.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education.....	1	T.A.M. 1 and 2—Analytical Me- chanics (Statics and Dynamics)....	5
		Physical Education.....	1
<i>Total</i>	<u>17</u>	<i>Total</i>	<u>21</u>

¹ The following options are available in Mechanical Engineering in the third and fourth years: general mechanical engineering, industrial, research, aeronautical, petroleum production, machine design, steam power, gas power, and railway.

² To be offered in fall semester of 1947.

³ Eight hours or more in a foreign language (French, German, or Spanish) may be substituted for an equal number of hours of approved electives.

CURRICULUM IN METALLURGICAL ENGINEERING

For the Degree of Bachelor of Science in Metallurgical Engineering

This curriculum is intended for the training of industrial metallurgists and those who wish to engage in advanced study and research, either in operational processes or in various problems involving physical and chemical phases of metallurgy.

First Year

Common Program for Freshmen (page 29), except that Chem. 5 and Math. 10a-10b are substituted for Chem. 4 and Math. 2, 4, 6a.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 22—Quantitative Analysis	5	C.E. 15—General Surveying	3
Math. 8a—Differential Calculus	3	Math. 8b—Integral Calculus	3
Phys. 1a—General Physics	4	M.E. 85—Pattern and Foundry Lab.; or German or French	3 or 4
Phys. 3a—Physics Laboratory	1	Phys. 1b—General Physics	4
Physical Education	1	Phys. 3b—Physics Laboratory	1
Approved Elective or German or French	3 or 4	T.A.M. 1—Analyt. Mech. (Statics)	2
		Physical Education	1
<i>Total</i>	17-18	<i>Total</i>	17-18

CURRICULUM IN MINING ENGINEERING

For the Degree of Bachelor of Science in Mining Engineering

First Year

Common Program for Freshmen (page 29).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 43—Engineering Geology	3	Geol. 20—General Mineralogy	3
Math. 7—Calculus	5	Math. 9—Calculus	3
Min. 1—Elements of Mining	4	Min. 2—Mining Methods	4
Phys. 1a—General Physics	4	Phys. 1b—General Physics	4
Phys. 3a—Physics Laboratory	1	Phys. 3b—Physics Laboratory	1
Physical Education	1	T.A.M. 1—Analyt. Mech. (Statics)	2
		Physical Education	1
<i>Total</i>	18	<i>Total</i>	18

COURSES OF INSTRUCTION

CIVIL ENGINEERING

1. PLANE SURVEYING.—(3). Use and care of instruments; practice in the common field of methods of measuring distance, angles, and elevations; computations of areas and volumes; land survey and re-survey methods; legal principles; problems. At summer camp only. *Prerequisite*: General Engineering Drawing 1; Mathematics 4.
2. TOPOGRAPHIC SURVEYING.—(3). Contours, map construction and volumetric estimates from contour maps; astronomical determination of latitude and azimuth; transit-stadia methods of topographic surveying; survey and map of an assigned area. At summer camp only. *Prerequisite*: Civil Engineering 1.

- 3a. ROUTE SURVEYING.—(3). Horizontal and vertical alinement for railways and highways; grades and grade reduction; curves, turnouts, and earthwork, principles of economic location; surveys, plans, and estimates. *Prerequisite*: Civil Engineering 2, 15, or 18.
35. PLAIN CONCRETE.—(2). Tests for Portland cement; aggregates; field and laboratory examination and tests; proportioning. Laboratory practice. *Prerequisite*: Sophomore standing in engineering, architecture, or landscape architecture.
36. CONSTRUCTION MATERIALS.—(1). Manufacture, properties, and use of cast iron, wrought iron, steel and other metals, brick and terra cotta; formation, properties, and use of stone; growth, properties, and use of timber. This course supplements Civil Engineering 35. *Prerequisite*: Sophomore standing.
60. BRIDGE AND BUILDING CONSTRUCTION.—(3). Materials, types of construction, and details for bridges and buildings. *Prerequisite*: Sophomore standing.

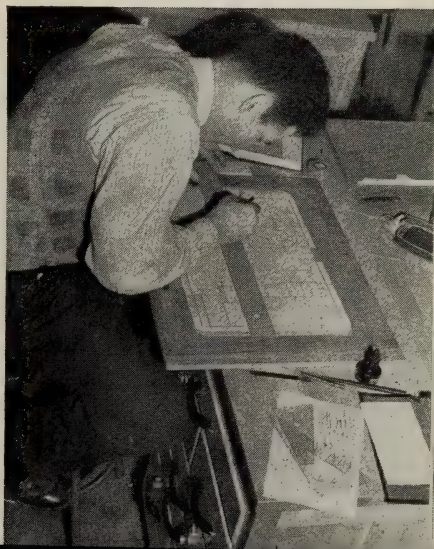
ELECTRICAL ENGINEERING

- 20a. ILLUMINATING ENGINEERING AND SECONDARY POWER.—(3). Fundamentals of illuminating engineering and lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. Open only to students in Electrical Engineering. *Prerequisite*: Sophomore standing in Electrical Engineering.
21. INTRODUCTION TO ELECTRODYNAMICS.—(3). Study of units and relations in electrostatic, magnetostatic, and electromagnetic circuits; characteristics of circuits parameters singly and in combinations. *Prerequisite*: Physics 1a, 3a, Mathematics 7, registration in Physics 1b, 3b, Mathematics 9.

GENERAL ENGINEERING DRAWING

1. ELEMENTS OF DRAWING.—(4). Lettering; orthographic projection; working drawings; chart and diagram drawings; isometric and oblique drawings; free-hand sketching; tracings; methods of reproducing drawings. *Prerequisite*: Plane Geometry (1 unit).
2. DESCRIPTIVE GEOMETRY.—(4). Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing, etc. *Prerequisite*: Plane and Solid Geometry (1½ units).
3. AIRCRAFT DRAFTING AND LOFTING.—(2). Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting-plane tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. *Prerequisite*: General Engineering Drawing 1 and 2.
6. ELEMENTS OF DRAWING.—(3). Same topics as covered in General Engineering Drawing 1 plus piping and perspective drawing. For students in chemical engineering. *Prerequisite*: Plane Geometry (1 unit).
7. ARCHITECTURAL PROJECTIONS.—(2). Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. *Prerequisite*: Plane and solid geometry (1½ units).

General Engineering Drawing Lab



8. ARCHITECTURAL PROJECTIONS (CONTINUED).—(2). Shades and shadows; oblique, isometric and perspective drawing; developments. *Prerequisite:* General Engineering Drawing 7.
10. PICTORIAL DRAWING.—(3). Industrial production illustration; axonometric, oblique, perspective, shades and shadows, rendering. *Prerequisite:* General Engineering Drawing 2.
12. GRAPHICAL CALCULATIONS.—(1). Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula in the College of Engineering. *Prerequisite:* General Engineering Drawing 1; Mathematics 6a.

MECHANICAL ENGINEERING

81. MACHINE TOOL OPERATION.—(4). Operation of machine tools; use of jigs and fixtures; tools for producing interchangeable parts. *Prerequisite:* Sophomore standing. For aeronautics students only.
- 31a. MECHANISM.—(2). A study of the transmission and modification of motion illustrated by linkwork, gearing, cams, screws, wrapping connections, etc. The subject is taught by lecture and discussion in the classroom and the solution of typical problems in the drafting room, employing graphical methods of investigation and solution. *Prerequisite:* To be taken with Physics 1a.
82. MACHINE TOOL PRODUCTION METHODS.—(2). Operation and function of machine tools; the use of jigs and fixtures in quantity production to reduce cost and insure interchangeable parts. *Prerequisite:* Sophomore standing; General Engineering Drawing 1.
85. PATTERN AND FOUNDRY LABORATORY.—(3). Design of wood and metal patterns; metallurgy of gray iron, floor, bench, and machine moulding; core-making; brass furnace and cupola practice; sand testing. *Prerequisite:* Sophomore standing and General Engineering Drawing 1.
87. MACHINE TOOL LABORATORY.—(3). Machine tools; fixture, jigs, and tools for producing interchangeable parts. *Prerequisite:* Sophomore standing.

PHYSICS

- 1a. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT).—(4). Lectures with demonstrations and recitations. For students in engineering, mathematics, physics, and chemistry. *Prerequisite:* Mathematics 2 and 4; concurrent registration in Physics 3a.
- 1b. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT).—(4). *Prerequisite:* Physics 1a; registration in Physics 3b.
- 3a. GENERAL PHYSICS LABORATORY.—(1). To accompany Physics 1a. *Prerequisite:* Physics 1a or registration therein.
- 3b. GENERAL PHYSICS LABORATORY.—(1). To accompany Physics 1b. *Prerequisite:* Physics 1b, or registration therein.

THEORETICAL AND APPLIED MECHANICS

1. ANALYTICAL MECHANICS (STATICS).—(2). Force systems, equilibrium; centroids; center of gravity; friction. *Prerequisite:* Mathematics 7; concurrent registration in Mathematics 9.
2. ANALYTICAL MECHANICS (DYNAMICS).—(3). Kinematics and kinetics. *Prerequisite:* Theoretical and Applied Mechanics 1.
17. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS.—(3). Force systems; equilibrium; friction, centroids; direct stress, riveted joints, beams, moment of inertia, deflection of columns. For architects and others who have not taken the calculus. *Prerequisite:* Mathematics 6a.
18. ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS (CONTINUED).—(3). *Prerequisite:* Theoretical and Applied Mechanics 17.

ARCHITECTURE

(Offered under the College of Engineering)

Since the practice of architecture is so diversified that no one can encompass it in all its details, some degree of specialization is necessary. In order to train future architects, two options are offered: general architecture and architectural engineering. A general understanding of the profession of architecture from the standpoint of design, safety, and economy, and of the architect's duties, is emphasized in both options. The first year of work is identical in both; a field of specialization is selected in the second year.

The general architecture option places the major emphasis on architectural design and includes a substantial program in architectural engineering. While the aesthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The architectural engineering option offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes two years of architectural design, freehand drawing, and the history of architecture, the student primarily interested in architectural engineering can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business, engineering, and language and literature. It also provides sufficient training for independent practice as an architectural engineer.

CURRICULUM IN ARCHITECTURE

For the Degree of Bachelor of Science in Architecture

This curriculum, which requires 142 semester hours for graduation, emphasizes architectural design in the training of students for service as draftsmen and designers in architectural organizations and for independent practice.



In Art Class

(Those who are interested in architectural engineering are referred to the option outlined below.)

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 31—Architectural Design.....	3	Arch. 32—Architectural Design.....	3
Art 21a—Freehand Drawing.....	2	Art 21b—Freehand Drawing.....	2
G.E.D. 7—Architectural Projections...2		G.E.D. 8—Architectural Projections...2	
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Trigonometry.....	2	Hygiene 2 or 5—Hygiene and Sanita- tion.....	2
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

Arch. 13—History of Architecture....	2	Arch. 14—History of Architecture....	2
Arch. 33—Architectural Design.....	3	Arch. 34—Architectural Design.....	3
Arch. 43—Technology of Materials...3		Arch. 44—Technology of Materials...3	
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
T.A.M. 17—Elements of Mechanics...3		T.A.M. 18—Strength of Materials...3	
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	19	<i>Total</i>	19

CURRICULUM IN ARCHITECTURAL ENGINEERING

For the Degree of Bachelor of Science in Architectural Engineering

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 31—Architectural Design.....	3	Arch. 32—Architectural Design.....	3
Art 21a—Freehand Drawing.....	2	Art 21b—Freehand Drawing.....	2
G.E.D. 7—Architectural Projections...2		G.E.D. 8—Architectural Projections...2	
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Trigonometry.....	2	Hygiene 2 or 5—Hygiene and Sanita- tion.....	2
Physical Education.....	1	Physical Education.....	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

Arch. 13—History of Architecture....	2	Arch. 14—History of Architecture....	2
Arch. 33—Architectural Design.....	3	Arch. 34—Architectural Design.....	3
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
Physical Education.....	1	T.A.M. 1—Analytical Mech. (Statics) 2	
<i>Total</i>	18	Physical Education.....	1
		<i>Total</i>	18

Electives

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 1a, 1b, 2a, Mathematics 2, 3, 4, 5, 6, Botany 1a, 1b, Geography 1, Geology 1, Zoology 1.

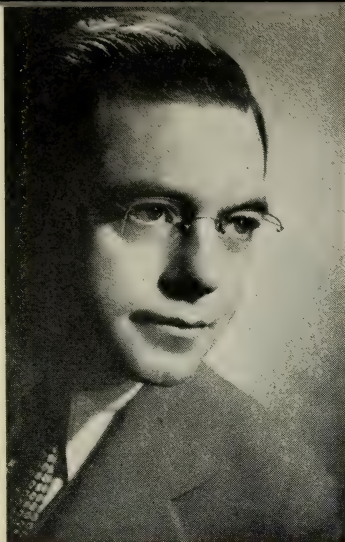
COURSES OF INSTRUCTION

ARCHITECTURE

13. ARCHITECTURE AND CIVILIZATION OF THE NEAR ORIENT.—(2). An analysis of structural space and form in the Near Orient, from Egypt to Persia (Iran), based on a study of the environmental influences and scientific achievement which governed the production in each area. Illustrated lectures, readings, sketches, and reports. *Prerequisite:* Architecture 31 or 32, or sophomore standing.
14. ARCHITECTURE AND CIVILIZATION OF GREECE AND ROME.—(2). An analysis of structural space and form in the areas affected by the classical developments of Greece and Rome. The course follows the pattern of Architecture 13 in the consideration of environmental influences and scientific achievement as factors underlying classic structural form. Illustrated lectures, readings, sketches, and reports. *Prerequisite:* Architecture 13.
- 31-32. ARCHITECTURAL DESIGN.—(3). Beginning study of architectural planning and designing. Fundamentals of sketching and presentation.
- 33-34. ARCHITECTURAL DESIGN.—(3). Continued study of architectural planning and designing; study of principles of plan, elevation, and section of small buildings. *Prerequisite:* Architecture 32.
43. MATERIALS AND METHODS OF CONSTRUCTION.—(3). Methods and materials of wood frame construction; manufacture and uses of materials of such construction; working drawings. *Prerequisite:* Architecture 32.
44. MATERIALS AND METHODS OF CONSTRUCTION.—(3). Methods of masonry and fireproof construction; manufacture and uses of materials of such construction; working drawings; detailing. *Prerequisite:* Architecture 43 or consent of instructor.

ART

- 21a-21b. FREEHAND DRAWING.—(2). Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal.
- 22a-22b. FREEHAND DRAWING (CONTINUED).—(2). Primarily for students in architecture and landscape architecture. Charcoal drawing from the cast; water color. *Prerequisite:* Art 21b.



Robert P. Hackett
Associate Dean

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

THROUGH KNOWLEDGE OF MODERN BUSINESS PRACTICES and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for underclassmen. Though the factual contents of many of the courses are directly useful in specific vocations — accounting, banking, selling, teaching — students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Many of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University.

PROGRAM FOR THE LOWER DIVISION¹

(Freshman and Sophomore Years)

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 22—Economic History of U.S. 3		Econ. 27—Introduction to Business. 3	
Accy. 1a or 1e—Prin. of Accounting. 3 or 2		Accy. 1b—Accounting Procedure. 3	
Rhet. 1—Rhetoric and Composition. 3		Rhet. 2—Rhetoric and Composition. 3	
Science and/or College Algebra ² 5-8		Science and/or College Algebra ² 3-5	
Physical Education. 1		Hygiene 2 or 5—Hygiene and Sanitation. 2	
		Physical Education. 1	
<i>Total</i>	15-17	<i>Total</i>	15-17

¹ Students interested in commercial teaching should contact the Dean of the College.

² See next page for footnote.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 1—Principles of Economics.....	5	Econ. 70—Elementary Statistics.....	3
Accy. 2a—Cost Accounting.....	3	Accy. 2b—Intermediate Accounting..	3
Language or Literature ³	4	Language or Literature ³	4
Rhet. 10—Business Letter Writing ⁴ ...2		Rhet. 10—Business Letter Writing ⁴ ...2	
or Speech 1—Effective Speaking....	3	or Speech 1—Effective Speaking....	3
Physical Education.....	1	Physical Education.....	1
		Elective.....	2-5
<i>Total</i>	15-17	<i>Total</i>	15-17

² *Mathematics and Science*.—All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to 5 or more hours each semester, or a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.

³ *Language*.—Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college. For the purpose of this requirement a candidate is assumed to have a reading knowledge of a modern foreign language if he has passed French 2b, German 5 or 6, Italian 2b, Spanish 2b, or a more advanced course in any of these languages, or if he has passed a proficiency examination equivalent to the final examination given in any of these courses. Students expecting later to elect *Government Foreign Service* or *Foreign Trade* as a field of concentration must choose the foreign language option.

⁴ *Rhetoric and Speech*.—Students taking Rhetoric 10 (Business Letter Writing) the first semester must take Speech 1 the second semester; those taking Speech 1 the first semester must take Rhetoric 10 the second semester.

Class in Accountancy



COURSES OF INSTRUCTION

ACCOUNTANCY

- 1a. PRINCIPLES OF ACCOUNTING.—(3). Simple transactions, accounts, books, statements; trial balances, adjustments; partnerships. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 1a and should register in Accountancy 1e.
- 1b. ACCOUNTING PROCEDURE.—(3). Relation of business documents to accounts; balance sheet and income statement. *Prerequisite:* Accountancy 1a or 1e.
- 1e. PRINCIPLES OF ACCOUNTING.—(2). Similar to Accountancy 1a, for those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 1a are permitted to register in Accountancy 1e and receive credit as in Accountancy 1a if their final grade is "C" or above. *Prerequisite:* One unit of entrance credit in bookkeeping.
- 2a. ELEMENTARY COST ACCOUNTING.—(3). Departmental, process, sequential, and job lot cost; cost records and procedures; disposition of burden. *Prerequisite:* Accountancy 1b; registration or credit in Economics 1 or 2.
- 2b. INTERMEDIATE ACCOUNTING.—(3). Depreciation; corporation accounts; interpretation of balance sheet and income statements. *Prerequisite:* Accountancy 2a.

ECONOMICS

NOTE: Economics 1 is the fundamental course in economics and is prerequisite for most of the advanced courses. Students expecting to do advanced work in economics should take Economics 1 in their sophomore year.

Economics 2, though open to all students who have had one year of University work, is primarily for students in the College of Engineering and in chemistry and other sciences. It may not be used as a prerequisite for advanced courses in economics except as indicated.

1. PRINCIPLES OF ECONOMICS.—(5). Value, price, money, exchange, distribution, consumption, and other fundamental concepts. *Prerequisite:* One year of University work.
2. ELEMENTS OF ECONOMICS.—(3). A briefer presentation of the matter covered in Economics 1. For non-commerce students. *Prerequisite:* One year of University work.
22. ECONOMIC HISTORY OF THE UNITED STATES.—(3). Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only.
27. INTRODUCTION TO BUSINESS.—(3). Survey of principles and practices, from the point of view of the business manager. Open to freshmen who have had one semester of University work.
70. ELEMENTS OF STATISTICS.—(3). Methods of collection, presentation, and interpretation of quantitative economic data; averages, dispersion, index numbers, time series analysis, and simple correlation. *Prerequisite:* Economics 1 or 2; sophomore standing.



n's Gym Class

PHYSICAL EDUCATION

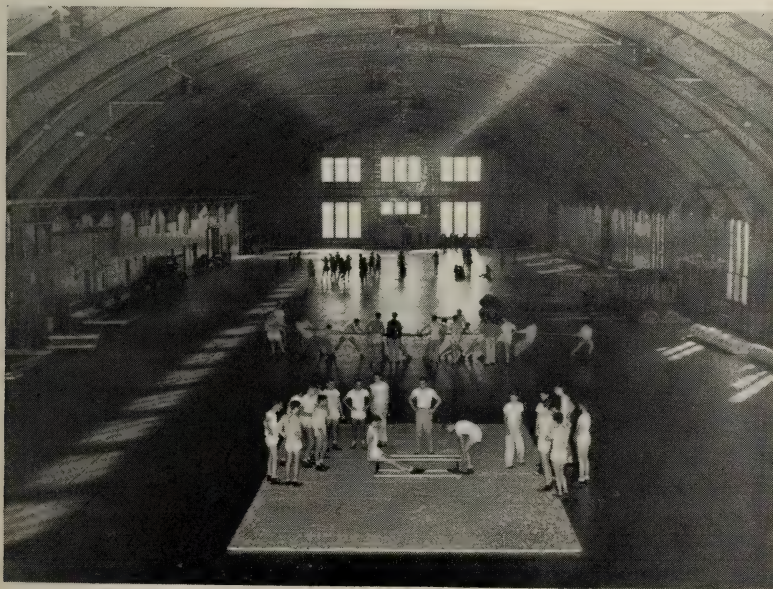
ALL STUDENTS, except veterans who have fulfilled the four-hour physical education requirement while in the service, are required to take physical education each semester until four credit hours have been earned. Physical education may be deferred only by special permission from the dean of the student's college.

Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce.

Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special

courses where they are given individualized programs. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week (for 1 hour) or two times a week (for 1½ hours). All general courses in physical education carry one hour of credit.



Navy Pier Gymnasium



Women's Gym Class

COURSES OF INSTRUCTION

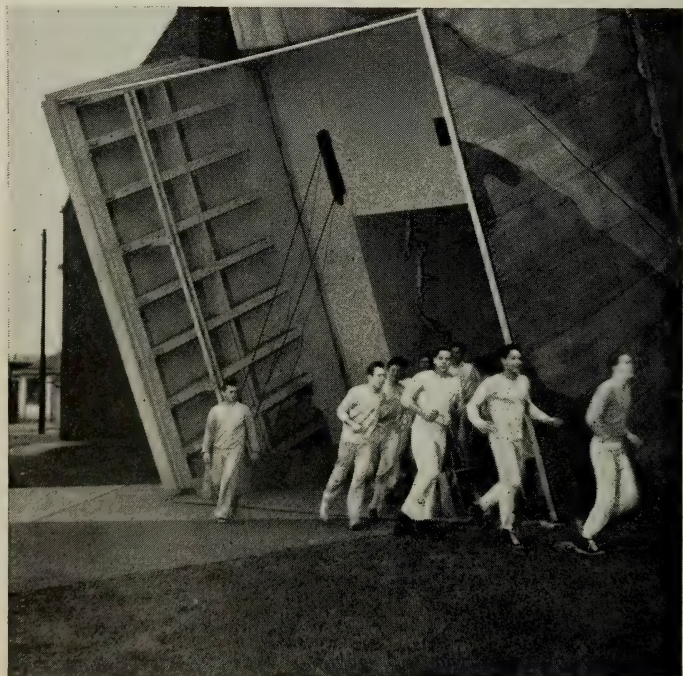
PHYSICAL EDUCATION FOR MEN

- 20. ADAPTED SPORTS.—Open only to students who are assigned by the Health Service.
- 22. BADMINTON AND HANDBALL.
- 23. VOLLEYBALL.
- 25. INDIVIDUAL TUMBLING.
- 27. APPARATUS STUNTS.
- 28. BOXING.
- 29. WRESTLING.
- 53. WEIGHT LIFTING.
- 60. BASIC PHYSICAL FITNESS.

PHYSICAL EDUCATION FOR WOMEN

- 51. ELEMENTARY RHYTHMS.
- 52. INTERMEDIATE RHYTHMS.
- 56. PRESCRIBED ACTIVITIES.—Open only to students assigned by the Health Service.
- 58. TEAM SPORTS.—Fall Semester: Volleyball, Basketball; Spring Semester: Volleyball, Tennis.
- 60. INDIVIDUAL SPORTS.—Badminton, Golf.
- 72. BASIC PHYSICAL FITNESS.

Entrance to Gymnasium



DIVISION OF SPECIAL SERVICES FOR WAR VETERANS

THE UNIVERSITY established the Division of Special Services for War Veterans as an agency with one chief function—to assist the veteran in returning to civilian life. To perform this function adequately, the Division offers its help both to those who are now veterans and to those who are still in the services.

The Division can supply information about the various services of the University. It can give advice on matters of educational aids and adjustments. It can help the veteran to secure those benefits to which he is entitled by directing him to the sources of such benefits and assisting him in finding the proper procedures to be followed to obtain them with the least delay.

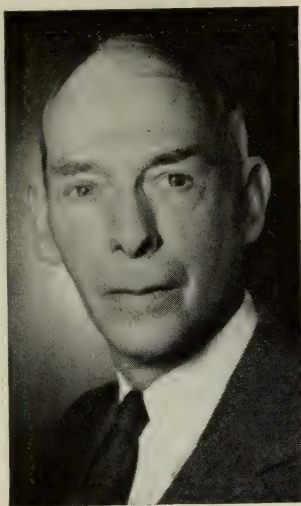
The Division can help the veterans to find in the curricula now offered by the schools and colleges of the University the programs which they need and want. It will assist them in obtaining such needed or desirable revisions of existing programs as can be agreed to by the college administering these programs. The Division will furthermore assist them in obtaining consideration when faced with requirements which their period in service has made unduly difficult or impossible for them to meet.

In the event there should be veterans whose needs can not be met by the established curricula, and the veteran requests a special program, the Division of Special Services for War Veterans will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran. All such programs shall be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at Navy Pier the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to Warren O. Brown, Veterans Counselor, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.



Veterans on Way to Class



Edwin A. Wolleson
Dean of Students

DEAN OF STUDENTS

THE DEAN OF STUDENTS is responsible for student life and welfare outside the classroom. He has as his principal assistants the Dean of Men (student employment, hospitalization insurance benefits), the Dean of Women, the Director of the University Health Service (physical examinations, medical advisor, and inspector of sanitation), and the Director of Physical Education (physical education classes and intramural program).

The Dean of Students is charged with the direction, supervision, and coordination of numerous University offices and agencies which work in the field of student life and which are active in the guidance of students in nonacademic activities which contribute to scholastic attainment. He is also in touch with local agencies with a view to encouraging students to take advantage of the cultural opportunities available to them in metropolitan Chicago. As the officer primarily interested in student extracurricular affairs, the Dean of Students is Secretary of the Faculty Executive Committee on Student Affairs, which is the official policy-making and legislative body responsible to the Executive Dean for conduct of recognized extracurricular activities of students on or off the campus.

The Dean of Students, E. A. Wolleson, is available for individual conferences.

DEAN OF WOMEN

THE OFFICE OF THE DEAN OF WOMEN is the clearing place for the problems of undergraduate women. Students are urged to come with questions that inevitably arise — social, academic, or financial. In addition to the daily counseling of individuals, the Dean of Women is chairman of the Faculty Administrative Committee for Social Events and Recreation.



Miss Ruth E. Leitch
Dean of Women

DEAN OF MEN

THE OFFICE OF THE DEAN OF MEN is organized for the purpose of aiding men students. The Dean not only gives advice and guidance, but also directs students to other administrative offices of the University which are organized to deal specifically with various matters of student welfare. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to present to him. He is well informed on matters having to do with registration, student employment, hospital and medical benefits, and the many perplexing problems which confront the new student. New students are urged to come to the office of the Dean of Men as soon as they arrive at the Pier.

The Student Employment Division which is under the supervision of the Dean of Men will assist students with contacts for employment, both in connection with the University and with industry and business establishments in the City of Chicago. (Additional information is given under the "Student Employment" section.)

The Hospital and Medical Service plan, under the supervision of the Dean of Men, is arranged to give the greatest benefits to the student who becomes hospitalized while enrolled at the University. (For further details refer to the explanation under Hospitalization and Medical Service.)



Warren O. Brown
Acting Dean of Men

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, a limited number of part-time jobs are available in various University offices and departments. Students will be paid at an hourly rate. The University maintains, in the Office of the Dean of Men, a Student Employment Division to assist students with contacts for employment.

The student who expects to be employed should arrange his class schedule and study hours for employment, or seek the type of employment which is suited to his scholastic program. Freshmen in curricula for which laboratory periods occupy most day hours between eight in the morning and five in the afternoon generally find food-service work at meal hours the most convenient and most time-conserving. Students in other curricula may improve their employment opportunities at the time they register by arranging class schedules which leave consecutive hours free each day. The student who desires a part-time position should file an application with the Student Employment Manager, Room 313. Applicants will be interviewed by an experienced interviewer when they apply for work.

SCHOLARSHIPS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition and matriculation fees include: County Scholarships (awarded on competitive examination); General Assembly Scholarships (awarded on nomination of members of the General Assembly); University Scholarships (established by the Board of Trustees); and Military Scholarships (for veterans who were Illinois residents or University students when they enlisted). Certain individuals and organizations have donated funds to be used for cash scholarship awards. These cash awards vary in amount as do the eligibility requirements. For details and application forms for cash scholarship awards, apply to the Dean of Students.

Since the majority of students attending the Chicago Undergraduate Division have graduated from Cook County high schools, particular attention is directed to the William J. Cook Fund Scholarship. Applications are initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

STUDENT LOAN FUNDS

LOAN FUNDS are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. The emergency funds are for small loans to be made on short notice, and to be repaid within a short time. The regular funds are for larger loans, and may be carried for a longer time.

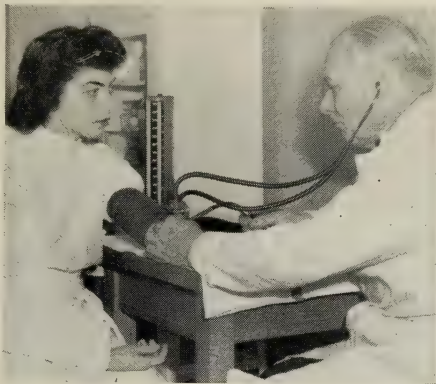
Most of these different funds have special qualifications which must be met by applicants, such as funds for students in certain curricula, of high scholastic standing, or to overseas veterans. Good scholarship, as well as the need of the individual, is a general qualification in all cases. Loans are not ordinarily made to students during their first year in the University or until they have demonstrated their ability. More detailed information regarding loan funds may be obtained from the Office of the Dean of Students, Navy Pier.

HEALTH SERVICE

THE UNIVERSITY maintains a health service for students to promote their physical and mental health, to control communicable disease among them, and to teach them the essentials of healthful living. Members of its staff give instruction in hygiene, conduct physical examinations, supervise food handlers, make sanitary inspections, hold personal conferences with students, and assist them in every way possible in making prompt adjustment. As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and referral to competent specialists and practitioners of medicine.

The health service station is located on the third floor at the east end of the Pier.

A Hospitalization and Medical Service is provided for all students enrolling at the University who pay the fee of five dollars each semester. For further details see Hospitalization and Medical Service section.



Physical Exam

HOSPITALIZATION AND MEDICAL SERVICE

A HOSPITALIZATION AND MEDICAL SERVICE FEE of five dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, rugs and dressings. (X-ray is excluded.)

NOTE: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee, may petition through the office of the Dean of Students, for a refund of this fee.

STUDENT PERSONNEL BUREAU

THE SERVICES of the Student Personnel Bureau are available to all University students who wish to make use of individual counseling in facilitating school and other individual adjustments. A staff of experienced counselors can help students verify or discover the relation between their abilities and courses of study for occupations in which they will do best; habits they can acquire or improve in increasing efficiency as a student—in reading rapidly and well, in increasing other study skills, and in modifying habits that have caused difficulty in getting the most done in the least time. The members of the Bureau also are glad to assist students in working through other personal and emotional problems which affect their school work.



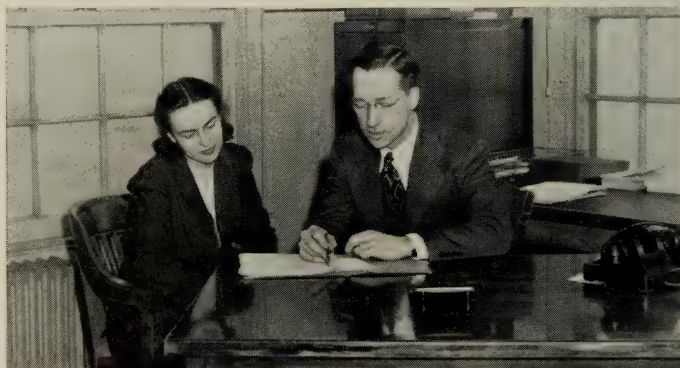
Testing Mechanical Abilities

Since an objective discussion of abilities, interests, educational background, and personal situation can be of great help in succeeding in and out of school, it is highly desirable for the student to avail himself of these services very soon after registration in the University.

First year students are given a group of Freshman Guidance Examinations administered by the staff of the Student Personnel Bureau prior to the first registration. Scores on these tests constitute important indexes to aptitudes, interests, and abilities. On request, a counselor will gladly assist in evaluating these, and where desirable, other evidences of educational and vocational assets.

These counseling and test services are available at all times to students at the Chicago Undergraduate Division. Whenever a student wishes to talk over any educational, vocational, or other personal problems, he may simply drop in at the Bureau and request an appointment.

The Student Personnel Bureau has its central office in Room 308, on the third floor south, at the extreme east end of the Pier.



Interpreting
Test
Results



At the Reference Desk

LIBRARY

THE LIBRARY at the Chicago Undergraduate Division is a branch of the 2,000,000-volume University Library on the Urbana campus. The Library undertakes to supply bibliographic materials and services for courses in liberal arts, commerce, engineering, and architecture offered

at the Undergraduate Division. It also supplies many items of broad cultural and recreational interest.

Special emphasis is placed on general reference service, in addition to the circulation and reserve book services. The Library will not attempt to duplicate any of the extensive scholarly research facilities already available in the city.

The Library will consist of 40,000 selected volumes within the next few years, and nearly 10,000 volumes (including 1,400 on deposit from the Chicago Public Library) are already on the shelves. Until the Library grows to full size, however, members of the faculty and student body may find it necessary also to use the Chicago Public Library and other libraries nearby for reference and circulation purposes.

A complete dictionary card catalog is maintained, and several periodical indexing services are available. The subscription list includes over 200 magazines and journals, a large portion of which will be maintained as permanent bound files.

The Library is located on the second floor at the east end of the Pier. Hours are 7:50 a.m. to 6:30 p.m. Monday through Friday, and 7:50 a.m. to 1:30 p.m. on Saturday. A mimeographed circular describing the Library's circulation rules and procedures can be obtained at the Circulation desk.



Library Scene



Down the Student Cafeteria Line

FOOD SERVICE

IN VIEW of the lack of adequate eating facilities in the immediate vicinity of Navy Pier, the University operates a student cafeteria to provide one-menu, moderately-priced breakfasts and lunches. The cafeteria, located at the east end of the Pier, serves lunches from 11 a.m. to 2 p.m. daily and breakfasts from 7:30 to 10:30 a.m. each day.

In addition, the University operates a dining room for faculty and staff, open from 11 a.m. to 2 p.m. daily. An additional service to students, faculty and staff are the two soda fountains, one located in the cafeteria and open from 9 a.m. to 5 p.m. each day, and the other in the lounge at the west end of the Pier, open from 7:30 a.m. to 6 p.m. daily.

In the Faculty Dining Room



In the Student Cafeteria





At the Christmas Ball

EXTRACURRICULAR ACTIVITIES

A FACULTY COMMITTEE ON STUDENT AFFAIRS, composed of the Dean of Students, the Dean of Men, the Dean of Women, and three appointed members from each of the three colleges is the official committee exercising control over all extracurricular activities. Ex-officio representation is provided from the Business Office, Physical Plant Department, Physical Education Department, and the Office of Public Information.

The University encourages initiative and tries to develop individual and group responsibility by offering a high degree of autonomy to students in the class and to recognized student organizations. For this purpose a division termed the Student Congress, composed of class and organization representatives, has been developed. The personnel of this organization work closely with the Faculty Executive Committee on Student Affairs in the development of programs and events of an extracurricular nature.

Conference



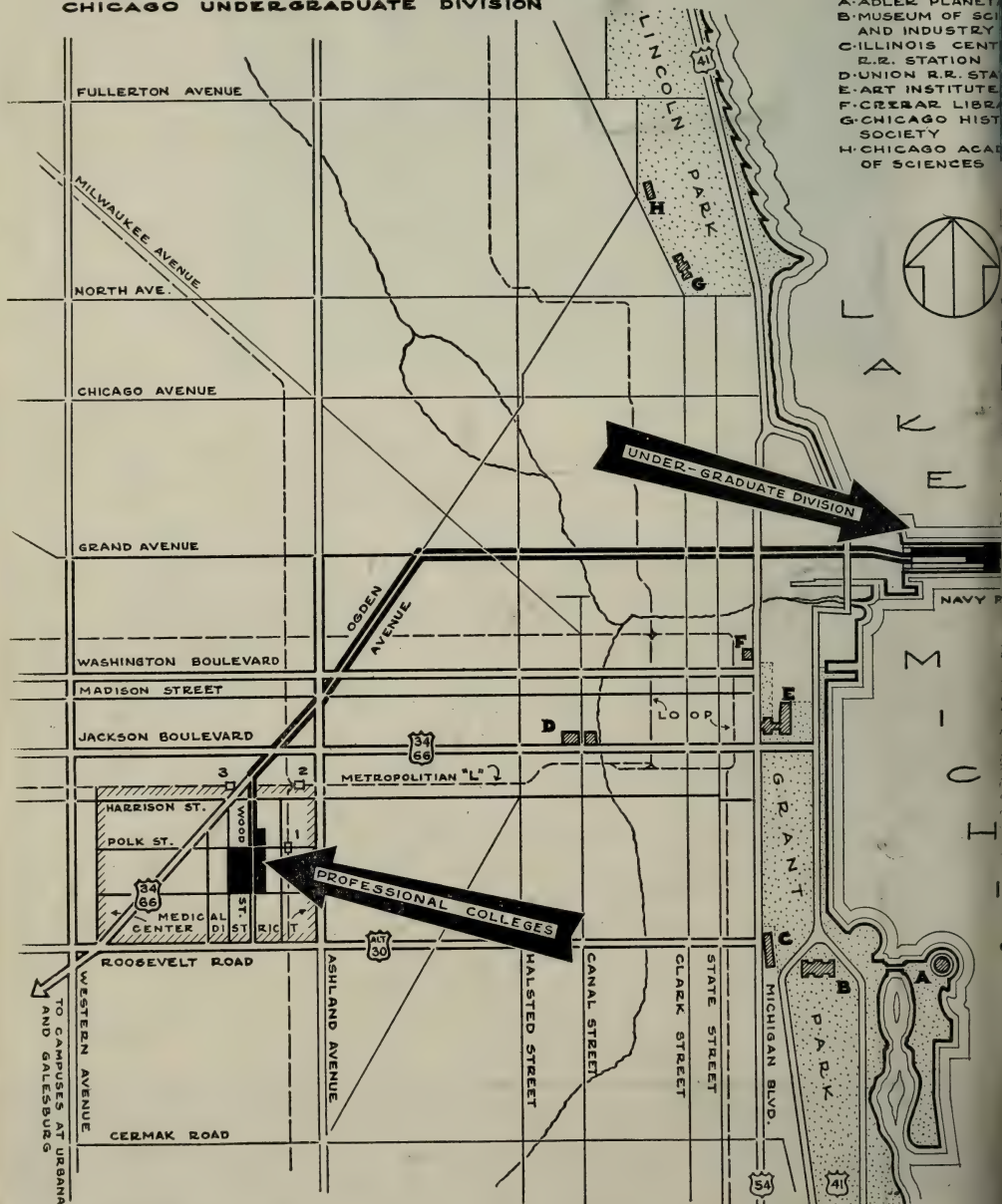
Students at Work



UNIVERSITY OF ILLINOIS

CHICAGO PROFESSIONAL COLLEGES
CHICAGO UNDERGRADUATE DIVISION

LEGEND -
A-ADLER PLANET
B-MUSEUM OF SCI
AND INDUSTRY
C-ILLINOIS CENT
D-E. STATION
E-ART INSTITUTE
F-CREAR LIBRA
G-CHICAGO HIST
SOCIETY
H-CHICAGO ACAD
OF SCIENCES



TRANSPORTATION -
FEEDER BUS - POLK & WOOD STREETS, TRANSFER GRAND AVE. STREET CAR.
STREET CAR - ASHLAND CAR ON PAULINA ST., TRANSFER GRAND AVENUE.
"L" STATIONS: 1-POLK ST. 2-MARSHFIELD 3-OSDEN AVE., ALL TRAINS TO LOOP,
TRANSFER STONY ISLAND STREET CAR.

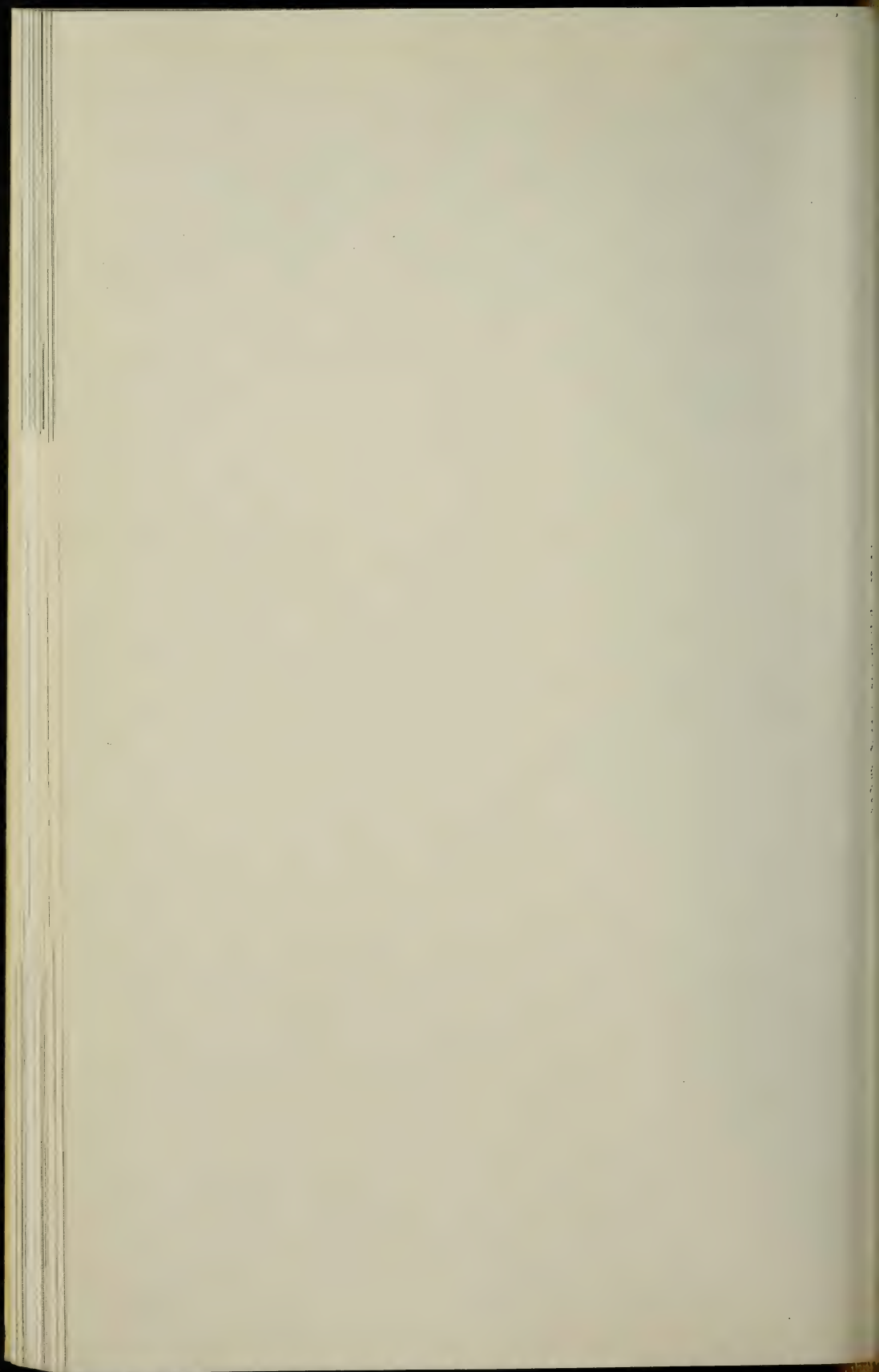
UNIVERSITY OF ILLINOIS

Chicago Undergraduate Division

CATALOG



THE LIBRARY OF THE
MAR 16 1948
UNIVERSITY OF ILLINOIS



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1948/49

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CALENDAR

Chicago Undergraduate Division

Navy Pier

1948 — SECOND SEMESTER

Feb. 9, Mon.—Feb. 12, Thurs. Registration
Feb. 13, Fri. Instruction Begins
March 25, Thurs., 1 p.m. Easter Vacation Begins
March 29, Mon., 1 p.m. Easter Vacation Ends
June 1, Tues.—June 10, Thurs. Semester Examinations

1948 — SUMMER SESSION

June 21, Mon.—June 22, Tues. Registration
June 23, Wed. Instruction Begins
Aug. 11, Wed.—Aug. 14, Sat. Session Examinations

1948 — FIRST SEMESTER

Sept. 13, Mon.—Sept. 16, Thurs. Registration
Sept. 17, Fri. Instruction Begins
Nov. 24, Wed., 12 noon Thanksgiving Vacation Begins
Nov. 29, Mon., 12 noon Thanksgiving Vacation Ends
Dec. 18, Sat., 1 p.m. Christmas Vacation Begins

1949 —

Jan. 3, Mon., 8 a.m. Christmas Vacation Ends
Jan. 17, Mon.—Jan. 25, Tues. Semester Examinations

1949 — SECOND SEMESTER

Feb. 7, Mon.—Feb. 10, Thurs. Registration
Feb. 11, Fri. Instruction Begins
Apr. 14, Thurs., 12 noon Easter Vacation Begins
Apr. 18, Mon., 1 p.m. Easter Vacation Ends
May 31, Tues.—June 8, Wed. Semester Examinations

1949 — SUMMER SESSION

June 18, Sat.—June 21, Tues. Registration
June 22, Wed. Instruction Begins
July 4, Mon. Independence Day (holiday)
Aug. 12, Fri.—Aug. 13, Sat. Summer Session Examinations

UNIVERSITY OF ILLINOIS

BOARD OF TRUSTEES

Members ex Officio

DWIGHT H. GREEN, Governor of Illinois.....Springfield
VERNON L. NICKELL, Superintendent of Public Instruction.....Springfield

Elected Members

Term 1943-1949

CHESTER R. DAVIS.....69 W. Washington Street, Chicago 2
DR. MARTIN G. LUKE.....1448 Lake Shore Drive, Chicago 10
FRANK H. MCKELVEY.....1023 Woodland Avenue, Springfield

Term 1945-1951

WALTER W. MCLAUGHLIN.....Citizens Building, Decatur 30
DR. KARL A. MEYER.....Cook County Hospital, Chicago 12
KENNEY E. WILLIAMSON.....606 Lehmann Building, Peoria 2

Term 1947-1953

JOHN R. FORNOF.....122 S. Bloomington Street, Streator
MRS. DORIS S. HOLT.....330 E. Sixth Street, Flora
PARK LIVINGSTON.....20 N. Wacker Drive, Chicago 6

Officers of the Board

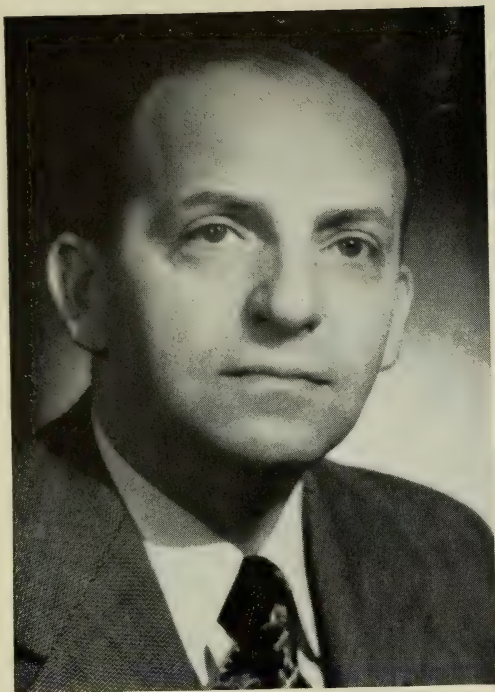
PARK LIVINGSTON, President.....Chicago
HARRISON E. CUNNINGHAM, Secretary.....Urbana
IRVIN L. PORTER, Treasurer.....First National Bank, Chicago 90
LLOYD MOREY, Comptroller.....Urbana

Committee on the Chicago Departments

DR. KARL A. MEYER (Chairman), DR. MARTIN G. LUKE,
CHESTER R. DAVIS

ADMINISTRATIVE OFFICERS AT URBANA

GEORGE DINSMORE STODDARD, Ph.D., Litt.D., L.H.D., LL.D.,
President of the University
COLEMAN ROBERTS GRIFFITH, Ph.D., LL.D., *Provost*
GEORGE PHILIP TUTTLE, B.S., *Registrar*



Charles C. Caveny
Dean

DEAN'S MESSAGE

THE CHICAGO UNDERGRADUATE DIVISION of the University of Illinois was established at Navy Pier in October, 1946, as a part of the program of the State to meet its share of the national emergency in higher education resulting from the overwhelmingly increased demand, primarily by veterans, for instruction at the university level.

Courses for freshmen and sophomores are offered in the College of Liberal Arts and Sciences, the College of Commerce, and the College of Engineering. In addition, architecture and architectural engineering curricula as a part of the College of Fine and Applied Arts are offered under the College of Engineering.

Courses of instruction are identical with those available in similar fields of undergraduate work on the Urbana campus. The fee schedule is identical with that at Urbana. Admission requirements are the same as those in effect on the Urbana campus.

Excellent classroom and laboratory equipment is provided, as well as library study, food service, and recreational facilities. The University's interest in the individual student extends beyond the classroom to provide educational, vocational and personal guidance.

Every effort is made to integrate the instructional program with the cultural resources of the City of Chicago so as to provide a superior educational unit. The University, as a public institution, desires that every student shall have the best possible opportunity to develop his individual capacities to their fullest degree.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University's tradition.

ADMINISTRATIVE OFFICERS

Chicago Undergraduate Division

Navy Pier

CHARLES C. CAVENY.....	Dean
HAROLD N. COOLEY.....	Assistant to the Dean
HAROLD W. BAILEY.....	Associate Dean Liberal Arts and Sciences
ROBERT P. HACKETT.....	Associate Dean Commerce and Business Administration
RANDOLPH P. HOELSCHER.....	Associate Dean Engineering Sciences
JOHN O. JONES.....	Director Physical Education
WARREN O. BROWN.....	Veterans Counselor Division of Special Services for War Veterans
EDWIN A. WOLLESON.....	Dean of Students
WARREN O. BROWN.....	Dean of Men
RUTH E. LEITCH.....	Dean of Women
DR. EARL B. ERSKINE.....	Director Health Service
PAUL C. GREENE.....	Director Student Personnel Bureau
DAVID K. MAXFIELD.....	Librarian
HAROLD E. TEMMER.....	Examiner and Recorder
ROBERT E. PORTER.....	Assistant to the Business Manager
HOWARD I. SCHMITT....	Assistant Superintendent, Building and Grounds
ROBERT E. KNOX.....	Personnel Officer
JEAN HURT MAURY.....	Manager Public Information

REQUIREMENTS FOR ADMISSION

TO BE CONSIDERED for admission to the Chicago Undergraduate Division, prospective students should have all official high school and college transcripts sent directly to the **Office of the Examiner and Recorder, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.** A permit to enter the University of Illinois is issued only on the basis of official detailed credentials filed in advance which meet the requirements for admission listed on the following pages. Credentials accepted for admission become the property of the University and are kept permanently in the files. The date of application is considered as the date that all official credentials are received at the Examiner and Recorder's Office. All veterans must submit a photostatic copy of Army Form 100, Navy and Coast Guard Form 553, Marine Corps Form 78 P.D. or equivalent.

GENERAL REQUIREMENTS

Age — An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian or with someone selected by them.

Graduates of Accredited Secondary Schools — An applicant for admission to the University must be a graduate of an accredited secondary school to be admitted by a certificate of graduation.

HIGH SCHOOL SCHOLARSHIP

1. *Students in upper three-quarters of graduating class* — An applicant whose rank in scholarship is in the upper three-quarters of his graduating class and who meets the requirements as stated below is admitted by certificate to full freshman standing.
2. *Students in the upper half of graduating class* — The Director of Admissions and Records is authorized to admit, without adhering to the usual requirements as they pertain to majors and minors, an applicant whose rank in scholarship is in the upper half of his graduating class. Such a student, however, must present those specific high school courses that are prerequisite to courses in the curriculum which he desires to follow in the University.
3. *Students in the lowest quarter of graduating class* — A graduate whose rank in scholarship is in the lowest quarter of his graduating class and who meets the requirements as stated below is admitted by certificate to probationary status and, in connection with his first registration, is placed under the special supervision of the dean of the college in which he is enrolled.

Graduates of Unaccredited Secondary Schools — The Director of Admissions and Records is authorized to admit a student who is a graduate of an unaccredited secondary school whose general rank in scholarship is in the upper quarter of his graduating class, subject to his passing examinations at the University in advance of admission in: (1) English composition and rhetoric; and (2) other high school subjects necessary to complete the special requirements of the chosen curriculum.

High-School Seniors — After the middle of their eighth semester, high school seniors should request their high schools to forward transcripts of work taken during the first seven semesters and supplementary transcripts showing courses in progress, expected grade, and rank in graduating class to the Office of the Examiner and Recorder, University of Illinois, Navy Pier.

SOURCES OF ACCEPTABLE CREDITS

The credits required for admission may be secured in the following ways:

1. By Certificate — A student presenting a certificate of graduation from an accredited secondary school is given entrance credit for all subjects named therein for which the school is specifically accredited.

2. By Examination — Entrance examinations are given by the University several times each year in Urbana and in Chicago. For details and dates of examinations write to E. J. Smith, Office of Admissions and Records, University of Illinois, Urbana, Illinois.

3. By Transfer — A person who has attended another accredited college or university will be considered for admission to the University of Illinois on presenting (1) a transcript of his college record, (2) a certificate of honorable dismissal from the institution from which he comes, and (3) an official statement of his secondary school work. Transfer students who are nonveterans and residents of Illinois must present a 3.0 (C) average in their college work to be considered for admission. Transfer students who are not residents of Illinois must present a 4.0 (B) average in their college work.

4. For Service and for Education in the Armed Forces — Under general provisions administered by the Committee on Admissions from Higher Institutions, the University will recognize for college credit certain training experience in the Armed Forces. Credentials of training experience in the Armed Forces should be sent to the Office of the Examiner and Recorder, University of Illinois, Navy Pier, for evaluation.

DEFINITIONS

1. A *unit* in the secondary school is a course covering an academic year and including not less than the equivalent of 120 clock hours of classroom work.
2. A *major* is three unit courses in one field.
3. A *minor* is two unit courses in one field.

REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Teacher Training Curricula.</p>	<p>English, 3 units Language, 2 units</p>	<p>Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine.</p> <p>Teacher Training Curricula.</p>	<p>English, 3 units Language, 2 units Algebra, 1 unit Geometry, 1 unit</p>	<p>Mathematics, 3 units, instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units Language, 2 units Algebra, 1½ units Geometry, 1 unit</p>	<p>Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p style="text-align: center;">COLLEGE OF COMMERCE</p> <p>All fields (Accountancy, Banking and Finance, Commerce and Law, Economics).</p>	<p>English, 3 units Algebra, 1 unit Geometry, 1 unit</p>	<p>Advanced Algebra, ½ unit. Science, 2 units (including 1 unit with laboratory).</p>
<p style="text-align: center;">COLLEGE OF ENGINEERING</p> <p>All Curricula (Aeronautical, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).</p>	<p>English, 3 units Algebra, 1½ units Plane Geometry, 1 unit Solid Geometry, ½ unit</p>	<p>Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.</p>
<p>Curricula in Architecture and Architectural Engineering.</p>	<p>English, 3 units Algebra, 1½ units Geometry, 1 unit</p>	<p>Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economics and history).</p>

CREDITS REQUIRED FOR ADMISSION

Fifteen units of acceptable secondary school work are required, including:

(A) Two majors and one minor, selected from Groups 1-5 listed below. One of the majors must be English.

(B) A total of at least nine units from the fields of English, foreign language, mathematics, science, and social studies, including preparation amounting to a major or minor sequence in at least three different fields.

(C) All subjects required for the curriculum which the applicant desires to enter. (See table on page 10).

(D) Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards. Fractional credits of less than one-half will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

ACCEPTABLE MAJORS AND MINORS

The majors and minors in fifteen units of acceptable secondary work required for admission may be selected from the following five groups:

(1) **English** — In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition as a part of a basic English course), and grammar, will count toward the three units in English. Four units in English, while not required for any curriculum, are recommended by all the colleges.

(2) **Foreign Language** — Three units in one language constitute a major. Two units in one language constitute a minor. The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, Spanish, Italian, Latin, Greek.

(3) **Mathematics** — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major in this subject. In Engineering or Architecture, where advanced algebra or solid geometry, or both, are required, students who have only one unit in geometry and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of class work.

(4) **Science** — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least two units chosen from one or more of the following subjects: physics, chemistry, botany and zoology. Biology may be offered in place of botany and zoology. The two units required for a minor must include at least one unit from the above subjects.

(5) **Social Studies** — Including history, civics, economics, commercial or economic geography, and sociology. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit in history.

VETERANS' REGISTRATION INFORMATION

Veterans may qualify for admission to the Chicago Undergraduate Division under the regular entrance requirements listed on pages 8 to 11 or through satisfactory demonstration of ability to carry college work.

Honorable discharge papers and credentials showing special training courses completed while in the Armed Forces should accompany high school and college credentials at the time of application. These credentials should be sent to the Office of the Examiner and Recorder, University of Illinois, Chicago Undergraduate Division, Navy Pier, for evaluation.

The veteran who plans to attend the University under the G.I. Bill or the Vocational Rehabilitation Act should:

1. Apply for a Certificate of Eligibility or a Letter of Authorization through the Veterans Administration, 366 W. Adams St., Chicago. A copy of discharge papers must accompany this application.

2. If you have previously used either a Certificate of Eligibility under the G.I. Bill, or a Letter of Authorization under the Vocational Rehabilitation Act, arrange with the Veterans Administration for a revised authorization.

3. Upon receiving a permit to enter the Chicago Undergraduate Division, submit Certificates of Eligibility to Miss Ruth M. Farnham, Veterans Benefits Administrator, University of Illinois, Navy Pier, Chicago 11, Illinois.

The presentation of a Certificate of Eligibility or Letter of Authorization will enable veterans to register and to receive books and supplies without charge. With this Certificate the only fee charged in cash will be the General Deposit fee required of all students. Without this Certificate, veterans will be responsible for their own tuition, fees, and books. A rebate will be made when the Certificate is secured.

It will also enable the veteran to receive monthly subsistence allowance from the Veterans Administration.

Students receiving educational benefits under the Vocational Rehabilitation Act should be certain that there is an authorization for their file at the University by the time they are to register.

Students transferring from Urbana or Galesburg. Students transferring to the Chicago Undergraduate Division from the Urbana campus or the Galesburg campus are responsible for requesting a transfer of their Certificates of Eligibility to Navy Pier. Certificates of Eligibility are *not* transferred with academic records. To request a transfer of Certificates, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration (W), University of Illinois, Urbana, Illinois; or Mr. R. L. Graffouliere, Division of Special Services for War Veterans, Galesburg Undergraduate Division, Galesburg, Illinois.

DIVISION OF SPECIAL SERVICES FOR WAR VETERANS

The University of Illinois Division of Special Services for War Veterans has established an office at the Chicago Undergraduate Division for the purpose of assisting the veteran in returning to civilian life, but it does not register students as on the Urbana campus. Instead, a counselor in this office assists the veteran in making educational adjustments and guides him in his search for the curriculum which will best satisfy his needs.

The veteran whose previous training has not fitted him for admission to the curriculum of his choice may, subject to the admission requirements of the University, register as a Division of Special Services for War Veterans student, in one of the three colleges: Engineering, Commerce, or Liberal Arts and Sciences, taking such courses as will enable him to meet the requirements for admission to that curriculum, and transfer into it when he is adequately prepared to enter the field of his choice.

For veterans whose special needs cannot be satisfied by existing curricula, and the veteran requests a special program at the time of his first registration, and provided his request is approved, the counselor for the Division of Special Services for War Veterans will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran and which will be accepted by those administering the program. All such programs will be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at the Chicago Undergraduate Division the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

Through the Examiner and Recorder of the University, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Examiner and Recorder.

The Office of the Veterans Counselor will help the veteran to secure those benefits offered him by the state and nation. For the convenience of the veteran student, the Illinois Veterans Commission and the Veterans Administration maintain service offices at the Chicago Undergraduate Division.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to the Division of Special Services for War Veterans, University of Illinois, Chicago Undergraduate Division, Chicago 11, Illinois.

FEES

TUITION FEE—All state residents, except those holding scholarships pay each semester a tuition fee of.....\$40.00

Students not residents of Illinois pay each semester a tuition fee of...\$80.00

HOSPITAL AND MEDICAL SERVICE FEE—All students, except those taking not more than five hours of undergraduate work in a semester pay each semester as insurance for hospital and medical service, a fee of.....\$5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—Students taking more than eight hours pay each semester a laboratory, library, and supply fee of....\$8.00
(Students taking less than eight hours pay \$2.50 each semester)

STUDENT ACTIVITY SERVICE CHARGE—A service charge is paid by all students to provide a program of student activities, including intercollegiate and intramural athletics.....\$4.00

DEPOSITS—Each student, at the time of his first registration, must make a deposit of \$5, against which such items as unreturned towels and locks, lost library books, library fines, and shortages in laboratory equipment are charged. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately by additional deposit to bring the total up to \$5. Any balance in deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, lockers, towels, and other equipment.

FEES FOR THE EIGHT-WEEK SUMMER SESSION

Students registering for the eight-week summer session pay fees as listed above except that the tuition fee for residents of Illinois is \$20, and for non-residents, \$40; laboratory, library, and supply fee, \$4; hospital and medical service fee, \$2.50; student activity service charge, \$2.

Students registering in courses totaling four semester hours or less pay \$3 a credit hour if residents of Illinois, or \$6 a credit hour if nonresidents, instead of the usual fee for eight weeks of instruction.

REFUNDS OF FEES

In case a student withdraws from a course or from the University¹ during the first ten days of instruction, the total amount of his fees for the work dropped will be refunded. After ten days and before the middle of the semester, a rebate of one-half the fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, for students registered for eight weeks only, the total amount of fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

¹ Students leaving the University should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student's being dropped at the end of the semester.



STUDENT WELFARE

THE UNIVERSITY'S INTEREST in the individual student extends beyond the classroom to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling, instruction in healthful living, and extracurricular activities, both social and cultural.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Personnel Bureau available to prospective students with educational and vocational problems. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester.

Counseling facilities of the offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Student Personnel Bureau are available to students at all times during their college work at the Chicago Undergraduate Division. Students are urged to discuss specific educational problems with their instructors.

Music and study in the lounge

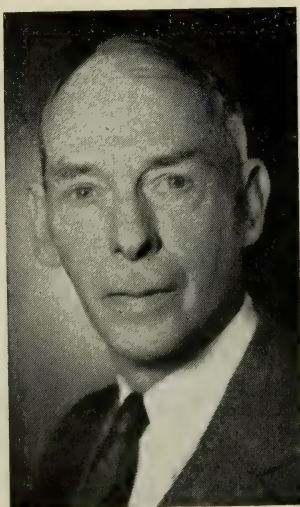




Serious business for the Student Congress

DEAN OF STUDENTS

THE WELFARE OF THE STUDENT outside the classroom is the responsibility of the Dean of Students. He is charged with the direction, supervision, and coordination of the University agencies which are active in the guidance of students in extracurricular activities. The Dean of Students is available for individual consultation with students.



Edwin A. Wolleson,
Dean of Students

His principal assistants are the Dean of Men, the Dean of Women, the Director of University Health Service, and the Director of Physical Education.

As the University officer primarily interested in student affairs, the Dean of Students serves as secretary to the Faculty Committee on Student Affairs, which administers student extracurricular activities through the administrative councils.

DEAN OF MEN

THE OFFICE OF THE DEAN OF MEN is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily.

As the financial advisor for student organizations, the Dean of Men takes an active part in student extracurricular affairs. He also serves as the advisor to Phi Eta Sigma, national scholastic honorary for first-year men students.

The Student Employment Division which assists needy students with contacts for part-time employment and the Hospital and Medical Service plan are under the supervision of the Dean of Men. Attendance records for both veteran and nonveteran students are maintained by the Office of the Dean of Men.



Warren O. Brown,
Dean of Men

DEAN OF WOMEN

THE OFFICE OF THE DEAN OF WOMEN is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the advisor to women's organizations at the Chicago Undergraduate Division and as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women.

All student social events are coordinated and unified through her office in her capacity as chairman of the Administrative Council Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.



Ruth E. Leitch,
Dean of Women

SCHOLARSHIPS AND LOAN FUNDS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition fees include: County Scholarships; General Assembly Scholarships; University Scholarships; and Military Scholarships. Particular attention is called to the William J. Cook Fund Scholarship. Applications should be initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

Loan funds are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualifications which must be met by applicants.

Detailed information regarding scholarships and loan funds may be obtained from the Office of the Dean of Students.

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Men maintains a list of part-time jobs available, both in University offices and in industry and business in the Chicago area. Applications for part-time positions should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule so that consecutive hours are free each day. Students in curricula for which laboratory periods occupy most day hours between eight in the morning and five in the afternoon may find food-service work at meal hours the most time-conserving type of employment. Employment for the first-year student should be a matter of necessity rather than choice.

HOSPITALIZATION AND MEDICAL SERVICE

A HOSPITALIZATION AND MEDICAL SERVICE FEE OF FIVE dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital or to your home, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, drugs and dressings. (X-ray is excluded.) The Hospital and Medical Service plan is under the supervision of the Dean of Men.

Note: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee, may petition through the Office of the Dean of Men during the first ten days of instruction, for a refund of this fee.

HEALTH SERVICE

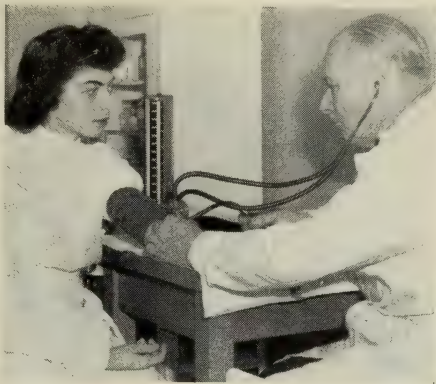
THE UNIVERSITY maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff at the University Health Service, are required of all students prior to the time of their first registration. Chest X-rays, in cooperation with the State Department of Public Health, are required as part of the physical examination. Immunizing inoculations for small pox, tetanus, diphtheria, influenza, and typhoid fever are available to students free of charge.

The staff of five physicians instruct classes in hygiene, and sanitation as follows:

Hygiene 2. Essentials of Hygiene and Sanitation. — Required of all undergraduate women during their first year of residence. (2 hours).

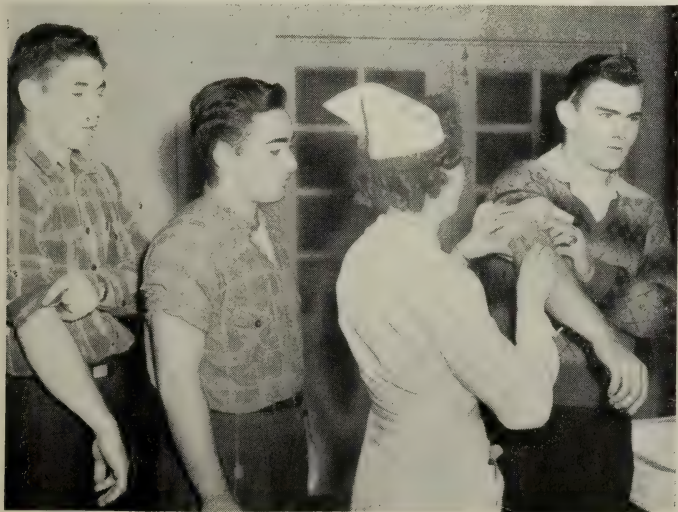
Hygiene 5. Elementary Hygiene and Sanitation. — Required of all undergraduate men during their first year of residence. (2 hours).

As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations. Members of the staff are available for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5:30 p.m. daily and mornings on Saturdays and during vacation periods.



Physical examination

Next — for flu shots



STUDENT PERSONNEL BUREAU

THE SERVICES OF THE STUDENT PERSONNEL BUREAU are available to all University students who wish to make use of individual counseling in facilitating educational and other individual adjustments. A staff of experienced counselors can help students discover the relation between their abilities and courses of study for occupations in which they will do best; habits they can acquire or improve in increasing efficiency as a student; and in modifying habits that have caused difficulty in getting the most done in the least time. The members of the bureau also are glad to assist students in working through other personal adjustment and emotional problems which affect their school work.

Since an objective discussion of abilities, interests, educational, background, and personal situation can be of great help in succeeding in and out of school, students are urged to take advantage of these services soon after their first registration in the University.

First year students are given Freshman Guidance Examinations by the staff of the Student Personnel Bureau prior to their first registration. Scores on these tests constitute important indexes to aptitudes, interests, and abilities. On request, a counselor will gladly assist in evaluating these, and where desirable, other evidences of educational and vocational assets.

Classes in study skills are conducted each semester by staff members of the Student Personnel Bureau. The systematic course in how to study includes practice in improving study habits, outlining notes, preparing for examinations, increasing speed and understanding in reading, and decreasing difficulties in concentrating and remembering. Students may enroll for the course at the time of registration. No academic credit is offered for the course.



Drill in speedy reading



Interpreting
test results

UNIVERSITY LIBRARY

THE LIBRARY OF THE CHICAGO UNDERGRADUATE DIVISION is one of the fastest-growing college libraries in the nation. At present, it contains nearly 20,000 volumes, all of which have been carefully chosen with the institution's undergraduate curricula in mind, as well as the general and recreational interests of students and faculty. Orders for new books are being placed constantly, so that it is expected that the Library will consist of 40,000 selected volumes in the next two years.

While no attempt will be made to duplicate scholarly research facilities already available in the city, emphasis is placed on general reference and readers' advisory service, with close liaison maintained with the teaching program and student activities. An ever-strengthening collection of encyclopaedias, dictionaries, handbooks, yearbooks and bibliographies is being assembled. A complete dictionary catalog is maintained, and twenty periodical indexing services are available. The subscription list includes over 350 magazines and journals. Twenty-year back files of 127 particularly useful periodicals have been bound for permanent reference use and are available on open shelves. A vertical-file pamphlet collection and micro-film reading facilities are also provided.

The Library is located on the second floor at the east end of the Pier. Its well-lighted, open-shelf reading room overlooking Lake Michigan offers study facilities for 800 students at 100 large tables. The staff of fourteen includes six trained librarians and eight clerks. Two circulation counters provide circulation and reserve book facilities.

Library hours are 8:30 A.M. to 5 P.M., Monday through Friday, and 9 A.M. to 12M. on Saturday. A mimeographed circular containing the Library's rules and regulations can be obtained upon request.

Students take advantage of reference service





Stop for supplies
at Bookstore

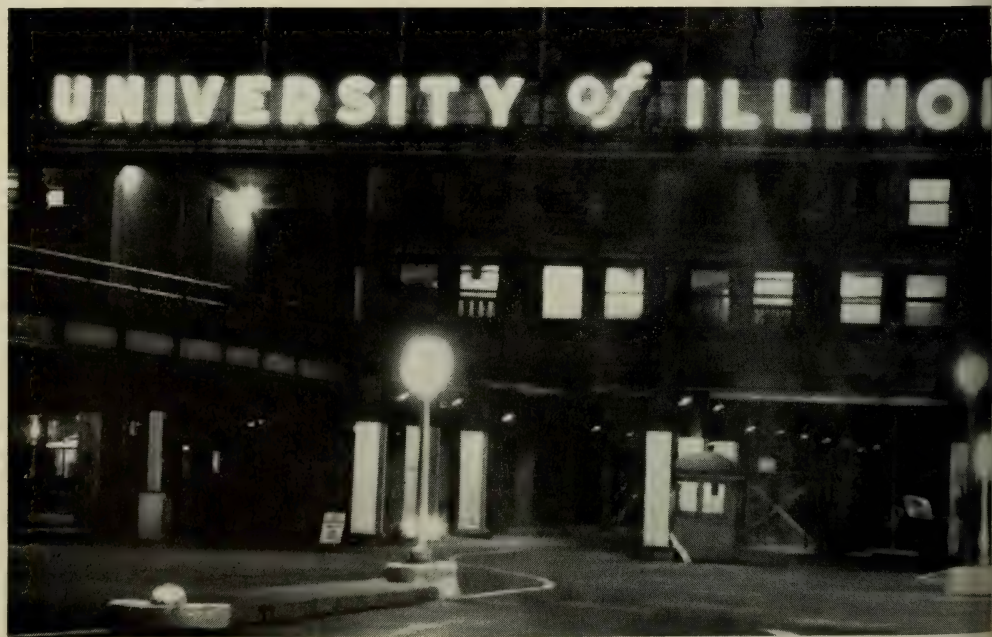
UNIVERSITY BOOKSTORE

THE UNIVERSITY BOOKSTORE is operated on a cooperative basis to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

Students and faculty members may participate in a "share-the-profit" plan at the end of each year if the store realizes a profit for the operating year.

The Bookstore is located at Room 87. It is open daily Monday through Friday from 8:30 a.m. to 5 p.m. During the registration period, the Bookstore is open from 8 a.m. to 6 p.m.

University at night



Down the
cafeteria line



FOOD SERVICE

The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the Pier. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

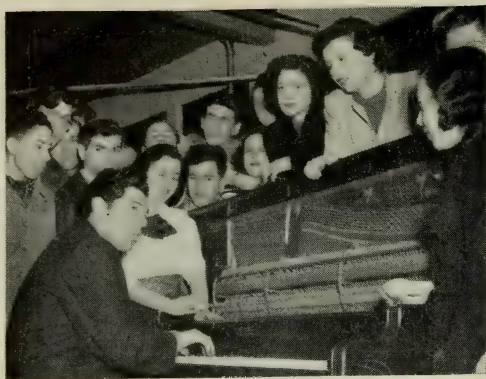
A popular student spot between classes is the snack bar located at the entrance to the pier, adjacent to the reception lounge. In addition, a dining room at the east end of the Pier offers cafeteria-style service to members of the faculty and staff.



A mid-afternoon snack



Lunch in the faculty room



Jive session

Extra — Curricular

Student extracurricular activities are recognized as an important part of the college program at the Chicago Undergraduate Division. Opportunities for practical experience in journalism, radio, and dramatics are offered through student organizations. Social and cultural activities are sponsored by various student groups.

Student activities of an extracurricular nature are administered by an administrative council of both student and faculty representatives. The administrative council reports to

the Faculty Committee on Student Affairs, composed of the Dean of Students, the Dean of Men, the Dean of Women, and appointed faculty members from each of the three colleges.

The Student Congress is the self-governing student organization, comprised of class officers and representatives elected by the students at the Chicago Undergraduate Division.

The "Pier Illini" is the weekly newspaper written and edited by students at the Chicago Undergraduate Division. The student radio



You're on the air



Meeting the deadline

Activities

group, NAPI, affords opportunities for acting, directing and engineering experience for students planning a career in radio. The Theater Guild is the student dramatic group.

The University dance committee, composed entirely of students, plans, organizes and supervises all-University dances held for the student body. Special dances and social events are sponsored by other student organizations. Student groups, such as the Spanish club, engineering club, and classics club, supplement classwork for students in these curricula.

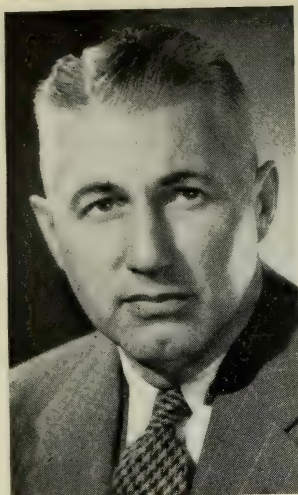
Queen of
the prom



Summer coke dance

Christmas formal





John O. Jones,
Director of Athletics

ATHLETICS

INTERCOLLEGIATE COMPETITION in six sports—basketball, track, cross-country, wrestling, gymnastics, and swimming—is entered by teams from the Chicago division of the University of Illinois. Students must meet Big Nine Conference eligibility rulings. However, in accordance with a special ruling, freshmen are allowed to participate without the participation counting against the three-year eligibility rule.

Varsity letters are awarded to athletes meeting participation requirements as well as to sophomore managers and sophomore cheerleaders. A staff of six coaches directs major sports. The athletic program is financed jointly by the student activity fee and the University of Illinois Athletic Association. Students are admitted free of charge

to all athletic events upon presentation of the student identification card.

In addition to intercollegiate sports, University students are offered an extensive intramural program in badminton, table tennis, volleyball, basketball, swimming, gymnastics, handball, weight-lifting, wrestling, track and field, tennis, softball and boxing. Intramural winners compete with intramural champions from other divisions of the University of Illinois. Members of winning teams are awarded medals.

The center of athletic activities at the Chicago Undergraduate Division is the gymnasium, with the largest single gymnasium floor in the state. The gymnasium accommodates eight full-size basketball courts, an individual exercise room, and badminton, volleyball and handball courts, as well as ample locker and shower facilities.

Intramural and intercollegiate athletics are under the supervision of a sub-committee of student and faculty representatives.



Scramble for baskets

COURSES REQUIRED OF ALL STUDENTS

THE FOLLOWING COURSE REQUIREMENTS must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be begun in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Hygiene — One semester, credit may be obtained by a proficiency examination. (Veteran students who have completed basic training in the Army, Navy, Marines, or Coast Guard receive credit for hygiene.)

2. Physical Education — Four semesters. (Veteran students who have completed basic training while in the service are exempted. For all other students under 30 years of age, physical education may be deferred only by written request through the Physical Education Department which will make recommendations to the dean of the student's college.)

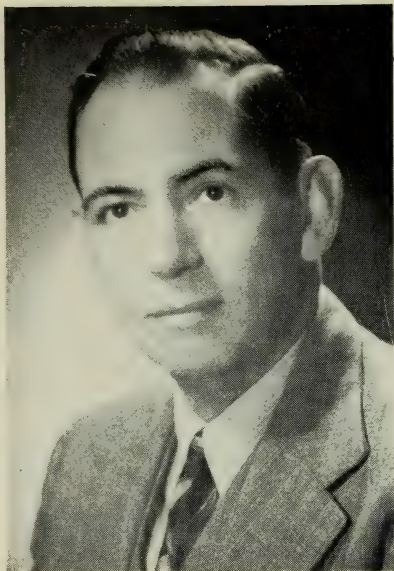
3. Rhetoric — Two semesters (Rhetoric 1 and 2). A satisfactory proficiency in the use of written English is a requirement of all undergraduate degrees. Rhetoric placement examinations are required of all new students prior to their first registration in the University. If the grade received in Rhetoric 2 is C or D, students must take the English qualifying examination. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 5).

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A-5 grade points; B-4; C-3; D-2; E (failure) 1. To compute the grade point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus if you earn 3 hours of A, 6 of B, 3 of C, and 2 of D, the computation of your grade point average is as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	52
	<hr/>		<hr/>	<hr/>
	14		52	14 = 3.71

Your grade point average is 3.71.



**Harold W. Bailey, Associate Dean
Liberal Arts and Sciences**

COLLEGE OF LIBERAL ARTS AND SCIENCES

THE COLLEGE OF LIBERAL ARTS AND SCIENCES at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years or commonly to change his vocational objective without additional time. Such a change after the beginning of the junior year usually cannot be made without loss of time.

It is assumed that upon completion of the two-years' work at the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: General, Chemistry, Chemical Engineering, Pre-Medicine, Pre-Dentistry, Teacher Training, Pre-Law, and Pre-Journalism. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

GENERAL CURRICULUM

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in a field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of advisers, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on page 30 in their first four semesters in the University.

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Hygiene—Hygiene 2 or 5.	Major—20 approved hours in one department.
Physical Education—4 semesters.	Minor (s)—20 approved hours in one or two departments.
Rhetoric—Rhet. 1 and 2 (If C or D in Rhet. 2, student must pass qualifying examination or take Rhet. 5).	Advanced hours—30 hours of credit in courses not open to freshmen and sophomores.
Foreign Language—Equivalent of two years in same language.	Residence—Either first 88 hours uninterrupted, or last 30 hours uninterrupted at the University of Illinois.
U. S. History—Placement test at University. If student fails test, he must take the course.	Average—3.0 (C) minimum average.
Mathematics—Placement test at University. If student fails test, he must take a special course.	Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of D.
Biological Sciences — 8 hours.	
Physical Sciences — 8 hours.	
Humanities — 8 hours.	
Social Sciences — 8 hours.	

REQUIRED SUBJECTS

A. Foreign Language. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed.

1. Foreign Language.—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portugese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 2b, German 2b or 6, Greek 4, Italian 2b, Latin 1a or 1b, Portugese 2b, Spanish 2b, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. Note:

No credit toward graduation is given a beginning course in a foreign language unless it is continued through a full year. (Students planning to enter a Graduate School are advised to obtain a reading knowledge of both French and German.)

B. Group Requirements — To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

I. For students who entered college prior to September 1, 1946:

1. *Liberal Arts.*—A total of 15 hours chosen from at least three of the following subjects, including one course in English or foreign literature, or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work, or its equivalent), economics, history, philosophy, political science, and sociology.

B. Group Requirements (Continued) —

2. *Sciences*.—A total of 15 hours chosen from at least three of the following subjects, including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, mathematics, geology, physics, physiology, psychology, and zoology.

II. For students who entered college after September 1, 1946:

1. *Basic Knowledge*.—A total of three hours in History of the United States and six hours in mathematics. These requirements may be satisfied by courses taken in high school, if the scores on placement examinations are sufficiently high.
2. *General Education*.—An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) Humanities; (b) Biological Science; (c) Physical Science; (d) Social Science.

ELECTIVES

1. *Liberal Arts and Sciences*.—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*.—Electives totaling as much as (but not more than) 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity to the following list approved by the faculty:

Accountancy.—A total of 6 hours (not including more than one of the following courses: Accountancy 1a, 1e, 12).

Agricultural Economics.—A total of 6 hours.

Architecture.—A total of 15 hours.

Art.—A total of 15 hours.

Business Law.—A total of 6 hours.

Business Organization and Operation.—A total of 6 hours. 12a–12b (Typewriting) and 13a–13b (Shorthand) may not be offered for credit.

Economics.—All courses.

Education.—A total of 20 hours.

Engineering.—A total of 10 hours in the College of Engineering.

Forestry.—3 hours.

Home Economics.—All courses.

Horticulture.—A total of 6 hours.

Hygiene.—Hygiene 2 or 5 (2 hours). Hygiene 8 is accepted in addition to the required two hours of credit.

Journalism.—A total of 10 hours.

Landscape Architecture.—A total of 7 hours.

Law.—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken with the advice of the Dean of the College of Law, and provided further that if any student desires to take more than 6 hours of law work, he must also register in the College of Law.

Library Science.—A total of 10 hours.

Military Science.—A total of 8 hours in advanced courses.

Music.—A total of 15 hours approved by the director of the school.

Physics.—All courses.

CHEMISTRY AND CHEMICAL ENGINEERING

THE MINIMUM LANGUAGE requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 8a and Mathematics 10a, and who do not have two units of high school credit in French or German. Both curricula lead to the Degree of Bachelor of Science in Chemical Engineering, but those who follow the five-year curriculum will find it possible, by the proper choice of electives, to obtain a Bachelor of Arts or Bachelor of Science degree at the end of four years.

Students in these curricula should note that registration in chemical engineering courses other than those open to freshmen and a few of those open to sophomores is restricted to students who have a grade-point average of 3.5.

CURRICULUM IN CHEMISTRY

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 8a—Inorganic Chemistry and Qualitative Analysis ¹	5	Chem. 8b—Inorganic Chemistry and Qualitative Analysis.....	5
Math. 10a—Freshman Mathematics ² ..	5	Math. 10b—Freshman Mathematics...4	
German or French.....	4	German or French.....	4
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Physical Education		Hygiene 2 or 5.....	2
		Physical Education	
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 24—Quantitative Analysis.....	5	Chem. 34—Organic Chemistry... ..	5
Math. 8a—Differential Calculus.....	3	Math. 8b—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education		Physical Education	
Electives ³	3	Electives ³	2
<i>Total</i>	16	<i>Total</i>	15

¹ All students with entrance credit in chemistry are required to take a proficiency examination before registering for Chem. 8a. Those who do not show the necessary proficiency will be placed in Chem. 1 or 2, after which they will take Chem. 6 and 10. For students without entrance credit in chemistry, the required sequence is Chem. 1, 6, and 10.

² For students who do not take Math. 10a-10b, the required sequence is Math. 2 (or 3), 4 (or 5), 5a, 7, and 9.

³ Suggested courses for electives are: Zool. 1, 2, 7; Bot. 1a, 1b; Engl. 20a, 20b; Geol. 20, 43; Hist. 1a, 3b; Bact. 5a, 5b; German or French. Of the total electives for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute courses in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

FOUR-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 8a—Inorganic Chemistry and Qualitative Analysis	5	Chem. 8b—Inorganic Chemistry and Qualitative Analysis	5
Math. 10a—Freshman Mathematics ¹	5	Math. 10b—Freshman Mathematics ¹	4
German, French, or Russian	4	German, French, or Russian	4
Rhet. 1—Rhetoric and Composition	3	Rhet. 2—Rhetoric and Composition	3
Physical Education	2	Hygiene	2
		Physical Education	2
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 24—Quantitative Analysis	5	Chem. 40—Physical Chemistry	3
Math. 8a—Differential Calculus	3	Chem. 41—Physical Chemistry Lab	1
Phys. 1a—General Physics	4	Math. 8b—Integral Calculus	3
Phys. 3a—Physics Laboratory	1	Phys. 1b—General Physics	4
G.E.D. 6—Elements of Drawing	3	Phys. 3b—Physics Laboratory	1
Physical Education	2	Ch.E. 61—Stoichiometry	3
		T.A.M. 1—Analyt. Mech. (Statics)	2
		Physical Education	2
<i>Total</i>	16	<i>Total</i>	17

OPTIONAL FIVE-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 1 or 2—General Chemistry ²	5	Chem. 6—Inorganic Chemistry	5
Math. 10a—Freshman Mathematics ¹	5	Math. 10b—Freshman Mathematics ¹	4
Rhet. 1—Rhetoric and Composition	3	German, French, or Russian	4
German, French, or Russian	4	Rhetoric 2—Rhetoric and Comp.	3
Physical Education	2	Hygiene	2
		Physical Education	2
<i>Total</i>	16	<i>Total</i>	17

Second Year

Chem. 10—Qualitative Analysis	5	Chem. 24—Quantitative Analysis	5
Math. 8a—Differential Calculus	3	Math. 8b—Integral Calculus	3
German, French, or Russian	4	Phys. 1b—General Physics	4
Phys. 1a—General Physics	4	Phys. 3b—Physics Laboratory	1
Phys. 3a—Physics Laboratory	1	German, French, or Russian	4
Physical Education	2	Physical Education	2
<i>Total</i>	16	<i>Total</i>	17

¹ For students who do not take Math. 10a-10b, the required sequence is Math. 2 (or 3), 4 (or 5), 6 (or 6a), 7, and 9.

² Students who do not qualify for Chem. 8a automatically go into the five-year curriculum.

PRE-MEDICAL CURRICULUM

THE PRE-MEDICAL CURRICULUM outlined below includes the first two years' work of the three-year curriculum required for admission to the University of Illinois College of Medicine.

This curriculum is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

At the end of each semester the scholastic average of each student enrolled in the pre-medical curriculum is computed. A student whose scholastic average at the time of computation is below the 3.5 average required for admission to the College of Medicine is denied further registration in this curriculum until such a time as he may have improved his average to this minimum.

Students who enter the College of Medicine, having met the language requirement and the appropriate group requirements in Group B., page 30, may receive the degree of Bachelor of Sciences from the College of Liberal Arts and Sciences on completion of the first year of medicine. No student may receive credit toward this degree for more than one year of work done in any other college or university.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Rhet. 1—Rhetoric and Composition...	3	Rhet. 2—Rhetoric and Composition...	3
Zool. 1—General Zoology.....	5	Zool. 2—Vertebrate Zoology.....	5
Chem. 1 or 2—General Chemistry ¹ ...	5	Chem. 5—Inorganic Chemistry.....	5
Hygiene 2 or 5.....	2	Math. 4 or 4a—Trigonometry ² ...	2 or 3
Physical Education		Physical Education	
Electives	0-3	Electives	0-3
<i>Total</i>	15-18	<i>Total</i>	15-18

Second Year

Phys. 7a and 8a—General Physics....	5	Phys. 7b-8b—General Physics.....	5
Modern Language ³	4	Modern Language ³	4
Chem. 22—Quantitative Analysis; or		Chem. 22—Quantitative Analysis; or	
Chem. 33—Organic Chemistry.....	5	Chem. 33—Organic Chemistry.....	5
Physical Education		Physical Education	
Electives ⁴	2-4	Electives ⁴	2-4
<i>Total</i>	16-18	<i>Total</i>	16-18

¹ Students having credit for chemistry in high school will register for Chem. 2 (three hours), provided they pass the placement test in chemistry.

² Math 4, Trigonometry, which is a prerequisite for physics in the sophomore year, may be taken either the first or second semester of the freshman year, or may be replaced by an elective if the student has credit for trigonometry in high school. Math. 4a (three hours) will be substituted by students who have only two units of mathematics in high school.

³ German, French, Spanish, etc. Two semesters of a modern language at the college level are required for admission to the medical school. The equivalent of two years of college work in a foreign language is required of students who are candidates for the bachelor's degree in the combined curriculum. (See prescribed subjects, page 29.)

⁴ Electives in the second and third years should be arranged to satisfy the requirements for admission to the medical school which the student expects to enter. The College of Medicine of the University of Illinois requires fourteen semester hours from at least two of the following: economics, history, philosophy, political science, psychology, sociology.





PRE-DENTAL CURRICULUM

THE WORK COVERED by the first two years of the pre-medical curriculum on the preceding page enables students to meet the requirements for admission to the University of Illinois College of Dentistry. A detailed statement covering admission to the College of Dentistry is found in the latest edition of the Catalog of the University of Illinois, in the section entitled "Admission to Colleges in Chicago."

PRE-LAW CURRICULUM

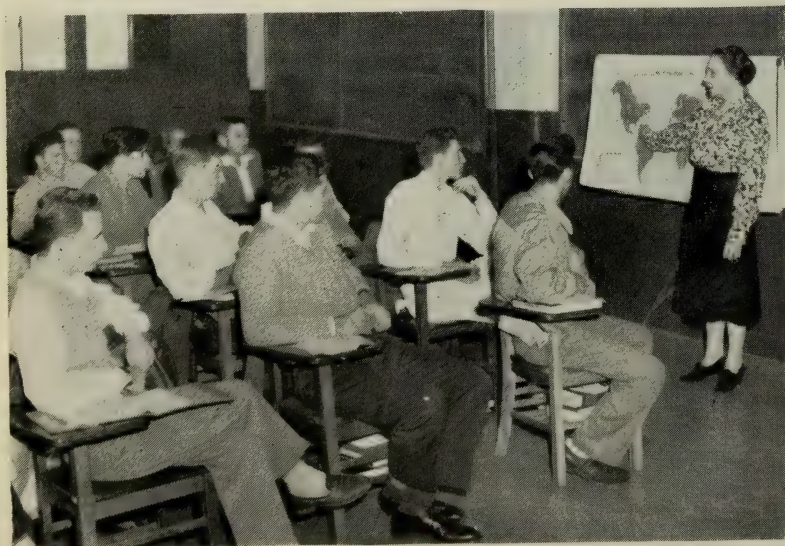
FOR STUDENTS planning the study of law, the pre-legal courses constitute a highly important phase of their education, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Personnel Bureau at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law should comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours.

The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

HOME ECONOMICS

STUDENTS PLANNING to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.



Rudiments of
geography

TEACHER-TRAINING CURRICULA

OF THE CURRICULA in teacher training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division as follows: Biology, Chemistry, English, French, Geography, German, Mathematics and Physical Sciences, Physics, Social Studies, Spanish, and Speech. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.



Laboratory in zoology

Prospective students in teacher training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

PRE-JOURNALISM CURRICULUM

STUDENTS PLANNING to enter the School of Journalism are advised to register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism as a candidate for a degree, a student must have completed sixty semester hours of work in one of the undergraduate curricula, including physical education and military science, with an average grade of 3.25 (one-fourth of the college work with an average grade of B and three-fourths with an average grade of C). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, eight hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism offers the following curricula: editorial, advertising, publication management, and radio.

COURSES OF INSTRUCTION

(The credit value of each course is given in parentheses.)

BACTERIOLOGY

- 5a. **INTRODUCTORY BACTERIOLOGY.**—Bacteria, yeasts, and molds; structure, morphology, and systematic relationships; general sanitation, communicable diseases, etc. Designed to accompany Bacteriology 5b, but may be elected without it. (3). Prerequisite: Sophomore standing or consent of instructor.
- 5b. **INTRODUCTORY BACTERIOLOGY LABORATORY.**—Morphology and physiology of bacteria and related microorganisms, preparation of media and apparatus, staining, cultivation. Designed to accompany Bacteriology 5a. (2). Prerequisite: Bacteriology 5a, or concurrent registration therein.

BOTANY

- 1a. **INTRODUCTORY BOTANY.**—Relation of the plant world to the physical and animal worlds; progressive development of the plant and its evolutionary significance; its part in the formation of soils, the production of food, and the maintenance of life. Lectures and demonstrational quiz. Designed to accompany Botany 1b, but may be elected without it. It is recommended that Freshmen register in Botany 1a and 1b concurrently. (3). Seniors receive only two hours credit.
- 1b. **INTRODUCTORY BOTANY (LABORATORY).**—Morphology, physiology, and ecology of representative groups of the plant world. One or two field trips. (2). Prerequisite: Botany 1a, or concurrent registration therein.
3. **PLANT PHYSIOLOGY.**—Absorption of materials from the external world and their transformation within the organism; the production and use of food. (5). Prerequisite: Botany 1a–1b, or 5.
16. **ECONOMIC BOTANY.**—Uses of plants and plant products by man; origin of cultivated plants and their relation to human history. (3). Prerequisite: Botany 1a–1b, 5, 15, or Division of General Studies 3.

CHEMISTRY

1. **INORGANIC CHEMISTRY.**—For students who have no entrance credit for high school chemistry. (5). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 1. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 2 or 3.
2. **INORGANIC CHEMISTRY.**—Lectures, recitations, and laboratory. For all students who have had one year of high school chemistry. (3). Seniors receive only two hours credit. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 2 if they complete the course with a grade of "C" or higher. Students who have failed in Chemistry 1 are permitted to register for Chemistry 2 and will receive five hours credit if their final grade is "C" or higher. Prerequisite: One unit of entrance credit in chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 1 or 3.
3. **INORGANIC CHEMISTRY.**—Lectures, recitations, and laboratory. For engineering students who have had no chemistry. (4). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 3.
4. **CHEMISTRY OF THE METALLIC ELEMENTS.**—Lectures, recitations, and laboratory. Limited to students in the engineering curricula. (4). Credit in Chemistry

4 will not be granted to students who have received credit in Chemistry 5 or Chemistry 6. Seniors receive only three hours credit. Prerequisite: Chemistry 1, 2, or 3.

5. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.—Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 4 or 6. (5). Credit in Chemistry 5 will not be granted to students who have received credit in Chemistry 4 or Chemistry 6. Seniors receive only three hours credit. Prerequisite: Chemistry 1, 2, or 3.

6. INORGANIC CHEMISTRY.—Metallic elements. For students in the curricula of chemistry, ceramics, and ceramic engineering, and chemistry majors who are not pre-meds. (5). Credit in Chemistry 6 will not be granted to students who have received credit in Chemistry 4 or Chemistry 5. Seniors receive only three hours credit. Prerequisite: Chemistry 1, 2, or 3.

8a-8b. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.—For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. (5). Seniors receive only three hours credit. Prerequisite: One unit of entrance credit in chemistry and a qualifying examination.

10. QUALITATIVE ANALYSIS.—Qualitative analysis of metals and inorganic compounds. Required of students whose major is chemistry and those registered in the curriculum of chemistry or chemical engineering except those who qualify for Chemistry 8a-8b. Lectures, recitations, and laboratory. (5). Prerequisite: Chemistry 6.

22. ELEMENTARY QUANTITATIVE ANALYSIS.—Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. Lectures, recitations, and laboratory. (5). Prerequisite: Chemistry 4 or 5. For students in home economics and pre-medical courses and all others who have not followed the sequence Chemistry 1, 2 or 3, 6 and 10.

33. ELEMENTARY ORGANIC CHEMISTRY.—For students in home economics and pre-medical courses. Lectures, recitations, and laboratory. (5). Prerequisite: Chemistry 5 or 10.

34. ORGANIC CHEMISTRY.—For students whose major is chemistry or for those registered in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. (5). Prerequisite: Chemistry 6, 10, and 24.

ENGLISH

10a. TYPES OF POETRY.—Intended primarily for those who expect to do considerable work in literature, in English or in any other language. (3). Credit is not given for English 11a or 11b in addition to English 10a, or for any of these courses in addition to English 20a and 20b. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.

10b. STUDY OF THE DRAMA.—Intended primarily for those who expect to do considerable work in literature, in English or in any other language. (3). See note under English 10a. Seniors receive only two hours credit. Prerequisite: English 10a or 11a.

11a. CHRONOLOGICAL STUDY OF MASTERPIECES.—Beginning to 1800. (3). See note under English 10a. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.

11b. CHRONOLOGICAL STUDY OF MASTERPIECES.—Eighteenth and nineteenth centuries. (3). See note under English 10a. Seniors receive only two hours credit. Prerequisite: English 11a.

12. AMERICAN LITERATURE.—(3). Prerequisite: Sophomore standing, or exemption from Rhetoric 2.
13. AMERICAN LITERATURE.—(3). Prerequisite: Sophomore standing, or exemption from Rhetoric 2.
- 20a. CHIEF ENGLISH WRITERS OF THE NINETEENTH CENTURY.—Nineteenth-century men of letters on religion, politics, economics, conduct, and social life. For students in professional and technical courses. (4). Credit is not given for English 20a in addition to English 10a–10b or 11a–11b. Prerequisite: Sophomore standing.
- 20b. CHIEF ENGLISH WRITERS BEFORE 1800.—(4). Credit is not given for English 20b in addition to English 10a–10b or 11a–11b. Prerequisite: Sophomore standing.
23. INTRODUCTION TO SHAKESPEARE.—(3). Prerequisite: Sophomore standing, or exemption from Rhetoric 2.

RHETORIC

0. RHETORIC AND COMPOSITION.—Open to students who fail the placement test for admission to Rhetoric 1. Intensive review of fundamentals, with considerable practice in composition. Students passing this course will be admitted to Rhetoric 1 without further examination. (No credit).
- 1–2. RHETORIC AND COMPOSITION.—This course provides elementary training and practice in the comprehension and in the expression of both written and oral English. (3). Seniors receive only two hours credit. Prerequisite: A passing grade on the Rhetoric 1 placement examination or a passing grade in Rhetoric 0. These courses are not counted toward a major in English.
3. EXPOSITION.—(3). Prerequisite: Rhetoric 1 and 2; sophomore standing.
4. NARRATION AND DESCRIPTION.—Elements of narrative writing. (3). Prerequisite: Rhetoric 1 and 2; sophomore standing.
10. BUSINESS LETTER WRITING.—(2). This course is not counted toward a major in English. Prerequisite: Rhetoric 1 and 2.

FRENCH

- 1a. ELEMENTARY FRENCH.—Grammar, pronunciation, reading of modern authors, composition, conversation. For students who have had no work in French. (4). Seniors receive only three hours credit. No credit toward graduation is given for French 1a without French 1b.
- 1b. ELEMENTARY FRENCH (CONTINUED).—(4). Seniors receive only three hours credit. Prerequisite: French 1a, or one year of high school French.
- 2a. MODERN FRENCH.—Rapid reading of modern authors; syntax and composition. (4). Prerequisite: French 1b, or two years of high school French.
- 2b. MODERN FRENCH (CONTINUED).—Rapid reading of modern authors; syntax and composition. (4). Prerequisite: French 2a, or three years of high school French.
- 3a. INTRODUCTION TO FRENCH LITERATURE.—(3). Prerequisite: French 2b, or four years of high school French.

GEOGRAPHY

1. ELEMENTS OF GEOGRAPHY.—The geographic point of view; elements of physical landscape; planetary relations, climate, climatic regions, land-forms; elements

of material culture. Five hours of lecture, discussion, and quiz. (5). Seniors and those with credit in Geography 3 receive only four hours credit.

2. **ECONOMIC GEOGRAPHY.**—Geographic conditions affecting industries, production, and commerce of the world; development and relation of commercial areas to location and availability of resources; markets and transportation routes. Discussion and quiz. (5). Seniors and those with credit in Geography 3 receive only four hours credit. Prerequisite: Geography 1 or 1a.
16. **GEOGRAPHY OF ILLINOIS.**—S and I, (3). Prerequisite: Geography 1, 1a, or 3, or consent of instructor.
22. **GENERAL GEOGRAPHY.**—A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 1, 1a, 2, 2a, or 3. (5). Seniors receive only four hours credit.

GEOLOGY

1. **GENERAL GEOLOGY.**—Cultural course. Surface features; agencies and processes of change; development of topographic forms; rocks and minerals, volcanoes, earthquakes, mountain-making forces; introduction to the history of the earth and the development of life. Lectures, quiz, and one field trip. (3). Seniors receive only two hours credit.
- 1a. **GENERAL GEOLOGY LABORATORY.**—(2). Prerequisite: Geology 1, or concurrent registration therein, or Division of General Studies 4a–4b.
- 2a. **HISTORICAL GEOLOGY.**—Evolution of the earth and its life. Discussion and quiz. (4). Seniors receive only three hours credit. Prerequisite: Geology 1, or 43, or 44, or Division of General Studies 4a.
43. **ENGINEERING GEOLOGY.**—(3). Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

- 1a. **ELEMENTARY COURSE.**—Grammar and reading for beginners. Not open to students who have had high school credit in this language. (4). Seniors receive only three hours credit. No credit toward graduation is given for German 1a without German 1b.
- 1b. **ELEMENTARY COURSE (CONTINUED).**—Grammar and reading. (4). Seniors receive only three hours credit. Prerequisite: German 1a, or one year of high school German, or equivalent.
- 2a. **INTERMEDIATE COURSE.**—Modern narrative prose. Oral practice and sight reading. (4). Prerequisite: German 1b, or two years of high school German, or equivalent.
- 2b. **INTERMEDIATE COURSE (CONTINUED).**—Literary reading. Modern narrative prose, but at the option of the instructor one of the easier classical works may also be read. Oral practice and sight reading. (4). Prerequisite: German 2a, or three years of high school German, or equivalent.
10. **MASTERPIECES OF GERMAN LITERATURE.**—Introduction into German literature, its subjects, forms, and ideals. (3). Prerequisite: German 2b, or equivalent.

HISTORY

- 1a. **CONTINENTAL EUROPEAN HISTORY TO 1815.**—Europe from the age of the great discoveries to the close of the Napoleonic wars. (4). Seniors receive only three hours credit.

- 1b. CONTINENTAL EUROPEAN HISTORY, 1815-1947.—Development of European nationalism, liberalism, and imperialism; World War; reconstruction. (4). Seniors receive only three hours credit.
- 2a. HISTORY OF ENGLAND TO 1688.—History of the British peoples to the close of the seventeenth century. (3). Seniors receive only two hours credit.
- 2b. HISTORY OF ENGLAND, 1688-1947.—Modern history of the United Kingdom; colonial and imperial development. (3). Seniors receive only two hours credit.
- 3a. HISTORY OF THE UNITED STATES TO 1828.—Colonial foundations, the movement for independence, early years of the Republic. (3). Prerequisite: Sophomore standing.
- 3b. HISTORY OF THE UNITED STATES, 1828-1947.—A century of national life and organization. (3). Prerequisite: Sophomore standing.
- 5a. THE ANCIENT WORLD.—Ancient empires and Greece. (3). Prerequisite: Sophomore standing.
- 5b. THE ANCIENT WORLD.—Rome. (3). Prerequisite: Sophomore standing.

MATHEMATICS

- R. ELEMENTARY ALGEBRA FOR VETERANS.—For veterans who are not ready for Mathematics 3. Registration follows a placement examination. (No credit).
- G. PLANE GEOMETRY FOR VETERANS.—Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course. (No credit).
1. SOLID GEOMETRY.—Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. (3). Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
2. COLLEGE ALGEBRA.—(3). Seniors receive only two hours credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
3. ALGEBRA.—(5). Students having $1\frac{1}{2}$ entrance units in algebra receive only three hours credit. Seniors receive only four hours credit. Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
4. PLANE TRIGONOMETRY.—(2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or registration in Mathematics 3; plane geometry, 1 unit.
- 4a. ELEMENTS OF ALGEBRA AND TRIGONOMETRY.—For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 6 or 6a. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 4 above. (3). Prerequisite: High school algebra, 1 unit; plane geometry, 1 unit.
5. ADVANCED TRIGONOMETRY.—Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, De Moivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. (2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 4, or entrance trigonometry ($\frac{1}{2}$ unit).
- 6a. ANALYTIC GEOMETRY.—Plane and solid analytic geometry. (4). Seniors receive only three hours credit. Prerequisite: Mathematics 2 or 3 and 4 or 5.

7. CALCULUS.—First course for students of mathematics and engineering. (5). Prerequisite: Mathematics 6a.
9. CALCULUS.—Second course for students of mathematics and engineering. (3). Prerequisite: Mathematics 7.
- 10a. COMBINED FRESHMAN MATHEMATICS.—A combined course integrating all the usual topics of algebra, trigonometry, and analytic geometry, and also some topics of differential calculus. For students of chemistry, chemical engineering, ceramic engineering, ceramics, metallurgy, and mining engineering. (5). Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
- 10b. COMBINED FRESHMAN MATHEMATICS (CONTINUED).—(4). Prerequisite: Mathematics 10a.
22. STATISTICS.—S, I, and II, (3). Prerequisite: Mathematics 2 or 3; sophomore standing.

PHILOSOPHY

1. INTRODUCTION TO PHILOSOPHY.—(3). Prerequisite: Sophomore standing.
2. LOGIC.—Reasoning; detection of fallacies, evidence. (3). Prerequisite: Sophomore standing.
7. MORAL IDEAS AND PRACTICE.—(2). Prerequisite: Sophomore standing.

PHYSIOLOGY

1. MAMMALIAN PHYSIOLOGY.—A survey of the structure and function of the human body. Lectures and demonstration. (3). Credit is not given for Physiology 1 or 1a in addition to 3a. Senior receive only two hours credit.

POLITICAL SCIENCE

- 1a. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS.—Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. (3). Prerequisite: Sophomore standing.
- 1b. AMERICAN GOVERNMENT: FUNCTIONS.—Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. (3). Prerequisite: Sophomore standing; Political Science 1a, or consent of the department.
16. GOVERNMENT IN ILLINOIS.—(2). Only one hour credit for this course is allowed to students who also take both Political Science 1a and 1b. Prerequisite: Sophomore standing.

PSYCHOLOGY

1. INTRODUCTION TO PSYCHOLOGY.—Essential facts and principles of psychology. Lectures and sectional meetings. (4). Prerequisite: Sophomore standing.
2. FIELDS OF PSYCHOLOGY.—The various fields of psychology, with special emphasis on applications. (4). Prerequisite: Psychology 1, or junior standing.
10. INDUSTRIAL PSYCHOLOGY.—Psychology of work and the factors affecting it, with special reference to industry. S, I, and II, (2). Prerequisite: Psychology 1.
21. CHARACTER AND PERSONALITY.—Analysis of the non-intellectual aspects and determinants of mentality and conduct, with special application to behavior problems and personnel psychology. (3). Prerequisite: Psychology 1. Not open to students who have completed Education 15.

SOCIOLOGY

1. **PRINCIPLES OF SOCIOLOGY.**—(3). Prerequisite: Sophomore standing.
2. **SOCIAL FACTORS IN PERSONALITY.**—Nature of person and relation to institutions, social order, and development. (3). Prerequisite: Sociology 1.

SPANISH

- 1a. **ELEMENTARY SPANISH.**—Grammar, pronunciation, reading, composition, conversation. For students who have had no work in Spanish. (4). Seniors receive only three hours credit. No credit toward graduation is given for Spanish 1a without 1b.
- 1b. **ELEMENTARY SPANISH (CONTINUED).**—(4). Seniors receive only three hours credit. Prerequisite: Spanish 1a, or one year of high school Spanish.
- 2a. **MODERN SPANISH.**—Rapid reading, review of grammar, composition, conversation. (4). Prerequisite: Spanish 1b, or two years of high school Spanish.
- 2b. **MODERN SPANISH (CONTINUED).**—(4). Prerequisite: Spanish 2a, or three years of high school Spanish.
- 3a.-3b. **INTRODUCTION TO SPANISH LITERATURE.**—Reading of modern authors of Spain and Latin-America. (3). Prerequisite: Spanish 2b, or four years of high school Spanish.

SPEECH

1. **PRINCIPLES OF EFFECTIVE SPEAKING.**—Speech composition; delivery; how to hold the attention and interest of the audience. Short expository and argumentative talks on selected topics. (3). Seniors receive only two hours credit. Open to freshmen.
2. **BUSINESS AND PROFESSIONAL SPEAKING.**—Persuasion, composition, and delivery of common types of business and semi-public addresses. (2). Prerequisite: Speech 1; sophomore standing.
3. **ARGUMENTATION.**—Construction of arguments, adaptation to audiences, refutation, practice debates on topics of current interest. (3). Prerequisite: Speech 1; sophomore standing.
5. **VOICE IMPROVEMENT.**—A drill course for the improvement of the normal speaking voice. I and II, (1). Seniors receive only one-half hour credit. Prerequisite: Consent of instructor. Open to freshmen.
8. **FUNDAMENTALS OF ACTING.**—S, (2); I and II, (3). Prerequisite: Speech 10; sophomore standing.
10. **ORAL INTERPRETATION OF LITERATURE.**—Principles of interpretation; analysis and oral reading of prose literature and verse. (2). Seniors receive only one hour credit. Open to freshmen.

ZOOLOGY

1. **GENERAL ZOOLOGY.**—Animal biology; structure, function, environmental relations, origin, and development of animals. Lectures, laboratory, and quiz. (5). Seniors receive only four hours credit.
2. **COMPARATIVE VERTEBRATE ANATOMY.**—Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their function and evolution. Lectures, laboratory, and quiz. (5). Prerequisite: Zoology 1. Grade of "C" in Zoology 1 is required of freshmen.
16. **BIRD STUDY.**—Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. II, (2). Prerequisite: Sophomore standing.

COLLEGE OF ENGINEERING

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plans and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.



Randolph P. Hoelscher
Associate Dean, Engineering Sciences

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. While each student pursues a curriculum of his own choice according to the field of his particular interest, all students must take certain courses. Basic courses in mathematics, chemistry, physics, rhetoric, and general engineering drawing are required in the first two years.

At the Chicago Undergraduate Division the first two years of courses in the following fields are offered: aeronautical engineering; civil engineering; electrical engineering; mechanical engineering; mining and metallurgical engineering; and engineering physics; and the first year of ceramic engineering.

Instruction in all courses is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois in his third year.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula. Each curriculum requires a minimum of 136 semester hours of credit, not counting the required work in military science and physical education. Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years.

Electives and Options

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences and in the College of Commerce and the College of Engineering. **Technical electives** include practically all courses in the College of Engineering not required in the student's curriculum except all elementary work in drawing.

In all curricula, no less than one year of college work in modern language (English, French, German, or Spanish) may be substituted for the approved elective to the extent of the hours specified in the particular curriculum.

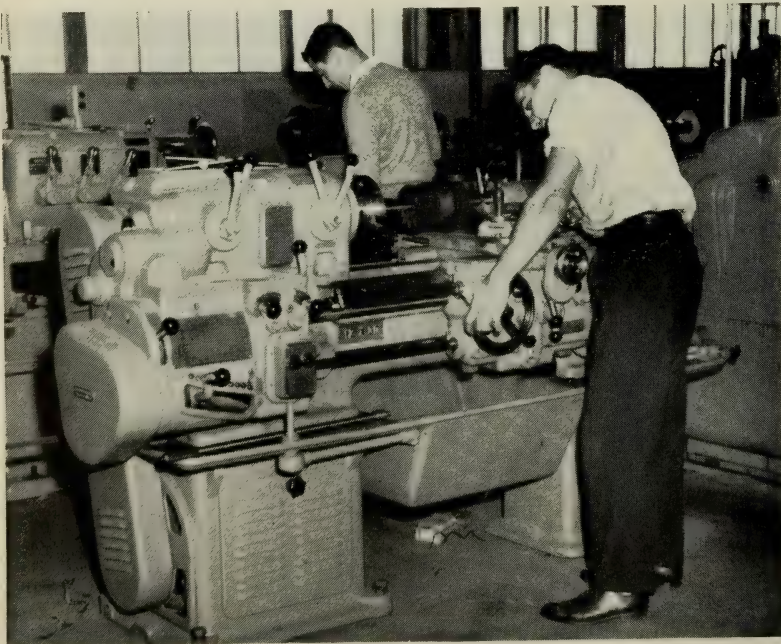
Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by **curriculum options**, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

COMMON PROGRAM FOR FRESHMEN

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on the following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 2 or 3—Inorganic Chemistry	3 or 4	Chem. 4—Metallic Elements	4
G.E.D. 1 or 4—Elements of Drawing	4	G.E.D. 2—Descriptive Geometry	4
Math. 2—Advanced Algebra	3	Math. 6a—Analytic Geometry	4
Math. 4 or 5—Trigonometry	2	Rhet. 2—Rhetoric and Composition	3
Rhet. 1—Rhetoric and Composition	3	Hygiene 2 or 5	2
Physical Education	1	Physical Education	1
Total	16-17	Total	18



Mastering
shop technics

CURRICULUM IN AERONAUTICAL ENGINEERING

First Year

Common Program for Freshmen (page 46)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D.3—Aircraft Drafting and Lofting	2	Math. 9—Integral Calculus	3
Math. 7—Differential Calculus	5	M.E. 82—Machine Tool Laboratory	1
M.E.81—Pattern, Foundry, and Welding Laboratory	2	Phys. 1b—General Physics	4
Phys. 1a—General Physics	4	Phys. 3b—Physics Laboratory	1
Phys. 3a—Physics Laboratory	1	Speech 1—Prin. of Effective Speaking	3
Non-technical Elective	2	T. A. M.1 and 2—Analytical Mechanics (Statics and Dymanics)	5
Physical Education	1	Physical Education	1
Total	17	Total	18

CURRICULUM IN CERAMIC ENGINEERING

First Year

Common Program for Freshmen (page 46) except that Chem. 5 and Math. 10a–10b are substituted for Chem. 4 and Math. 2, 4, and 6a.

CURRICULUM IN CHEMICAL ENGINEERING

This curriculum is administered by the College of Liberal Arts and Sciences. See pages 31 and 32

CURRICULUM IN CIVIL ENGINEERING

First Year²

Common Program for Freshmen (page 46)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E.3a—Route Surveying ³	3	C.E.35—Plain Concrete	2
C.E.60—Bridge and Bldg. Construc.	3	C.E. 36—Construction Materials	2
Math. 7—Differential Calculus	5	Geol. 43—Engineering Geology ¹	3
Phys. 1a—General Physics	4	Math. 9—Integral Calculus	3
Phys. 3a—Physics Laboratory	1	Phys. 1b—General Physics	4
Physical Education	1	Phys. 3b—Physics Laboratory	1
		T.A.M.1—Analytical Mech. (Statics)	2
		Physical Education	1
Total	17	Total	18

¹ Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geol. 43, 3 hours, and approved and non-technical electives, 5 hours.

² C. E. 1, C. E. 2, and C. E. 3, Route Surveying, must be taken at the summer camp between the freshman and sophomore years.

³ Offered during the fall term only.

CURRICULUM IN ELECTRICAL ENGINEERING

First Year

Common Program for Freshmen (page 46).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
E.E. 20a—Illuminating Engineering and Secondary Power Distribution..	3	E.E.21a—Introduction to electrodynamics	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E. 87—Machine Tool Laboratory; or Speech 1—Principles of Effective Speaking ²	3	Speech 1—Principles of Effective Speaking; or M.E. 87—Machine Tool Laboratory ²	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education	1	T.A.M.1—Analytical Mech. (Statics) ..	2
		T.A.M.2—Analyt. Mech. (Dynamics) ..	3
		Physical Education	1
Total.....	17	Total.....	20

CURRICULUM IN ENGINEERING PHYSICS

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

First Year

Common Program for freshmen (page 46) except that substitution of Chem. 6 for Chem. 4 is advised.

Second Year³

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective.....	4	German or Approved Elective.....	4
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 1a—General Physics.....	4	Phys. 1b—General Physics.....	4
Phys. 3a—Physics Laboratory.....	1	Phys. 3b—Physics Laboratory.....	1
Physical Education	1	T.A.M.1—Analytical Mech. (Statics) ..	2
Approved Elective	3	Physical Education	1
		Approved Elective	3
Total.....	18	Total.....	18

¹ Beginning with the second semester of the third year in Electrical Engineering, three options are available: communication and electronics, illumination, or power. Courses in the second year will vary according to the option the student intends to select in the third year. See notes below.

² Students intending to select the option in Illumination take Speech 1 the first semester and Physiology 5 the second semester.

³ The election of Chem. 10, 24, and 34 is advised. Students wishing to emphasize geophysics should elect most or all of the technical options in geology. Five hours must be approved non-technical courses.

CURRICULUM IN GENERAL ENGINEERING

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporations, finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations.

First Year

Common Program for Freshmen (page 46).

Second Year

FIRST SEMESTER		SECOND SEMESTER	
	HOURS		HOURS
Econ.2—Principles of Economics.....	3	Geol.43—Engineering Geology	3
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
M.E.85—Pattern and Foundry Lab; or C.E.15—General Surveying ¹	3	Phys. 1b—General Physics.....	4
Phys. 1a—General Physics.....	4	Phys. 3b—Physics Laboratory.....	1
Phys. 3a—Physics Laboratory.....	1	T.A.M. 1 and 2—Analytical Mech. (Statics and Dynamics).....	5
Physical Education	1	Physical Education	1
Total.....	17	Total.....	17

¹ Not given at the Chicago Undergraduate Division, must be taken at Urbana.



Demonstration
in foundry

CURRICULUM IN MECHANICAL ENGINEERING

First Year

Common Program for Freshmen (page 46).

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 37—Mechanism	3	Math. 9—Integral Calculus	3
Math. 7—Differential Calculus	5	M.E. 87—Machine Tool Lab; or M.E. 85; Pattern and Foundry Lab.	3
M.E. 85—Pattern and Foundry Lab; or M.E. 87—Machine Tool Lab.	3	Phys. 1b—General Physics	4
Phys. 1a—General Physics	4	Phys. 3b—Physics Laboratory	1
Phys. 3a—Physics Laboratory	1	T.A.M. 1 and 2—Analytical Mechanics (Statics and Dynamics)	5
Physical Education	1	Physical Education	1
<hr/>		<hr/>	
Total	17	Total	17

CURRICULUM IN METALLURGICAL ENGINEERING

First Year

Common Program for Freshmen (page 46) except that Chem. 5 and G.E.D. 6 are substituted for Chem. 4 and G.E.D. 1.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 22—Elementary Quantitative Analysis	5	Math. 9—Calculus	3
Math. 7—Calculus	5	Phys. 1b—General Physics	4
Phys. 1a—General Physics	4	Phys. 3b—Physics Laboratory	1
Phys. 3a—Physics Laboratory	1	T.A.M. 1—Analyt. Mech. (Statics) ..	2
Physical Education	1	Met. E. 1—Introduction to Metallurgy ²	3
<hr/>		Approved Elective ³	3
Total	16	Total	16

CURRICULUM IN MINING ENGINEERING

First Year

Common Program for Freshmen (page 46).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 43—Engineering Geology	3	Geol. 20—General Mineralogy	3
Math. 7—Calculus	5	Math. 9—Calculus	3
Min. 1—Elements of Mining ²	4	Min. 2—Mining Methods ²	4
Phys. 1a—General Physics	4	Phys. 1b—General Physics	4
Phys. 3a—Physics Laboratory	1	Phys. 3b—Physics Laboratory	1
Physical Education	1	T.A.M. 1—Analyt. Mech. (Statics) ..	2
<hr/>		Physical Education	1
Total	18	Total	18

¹ The following options are available in Mechanical Engineering in the third and fourth years: general mechanical engineering, industrial, research, aeronautical, petroleum production, machine design, steam power, gas power, and railway.

² Not given at the Chicago Undergraduate Division. Substitute approved elective.

³ Eight hours of foreign language (French, Spanish, German or Russian) may be substituted for hours of approved elective.

COURSES OF INSTRUCTION

CIVIL ENGINEERING

1. PLANE SURVEYING.—Use and care of instruments; practice in the common field methods of measuring distance, angles, and elevation; computations of areas and volumes; land survey and re-survey methods; legal principles; problems. At summer camp only. (3). Prerequisite: General Engineering Drawing 1 or 4; Mathematics 4.
2. TOPOGRAPHIC SURVEYING.—Contours, map construction and volumetric estimates from contour maps; astronomical determination of latitude and azimuth; transit-stadia methods of topographic surveying; survey and map of an assigned area. At summer camp only. (3). Prerequisite: Civil Engineering 1.
- 3a. ROUTE SURVEYING.—Horizontal and vertical alinement for railways and highways; grades and grade reduction; curves, turnouts, and earthwork, principles of economic location; surveys, plans, and estimates. (3). Prerequisite: Civil Engineering 2, 15, or 18.
- 3b. ROUTE SURVEYING.—To be taken concurrently with Civil Engineering 3a or at preceding summer camp. (1).
35. PLAIN CONCRETE.—Tests for Portland cement; aggregates; field and laboratory examination and tests; proportioning. Laboratory practice. (2). Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.
36. CONSTRUCTION MATERIALS.—Manufacture, properties, and use of cast iron, wrought iron, steel, and other metals; brick and terra cotta; formation, properties, and use of stone; growth, properties, and use of timber. This course supplements Civil Engineering 30, 31, and 35. (1). Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.
60. BRIDGE AND BUILDING CONSTRUCTION.—Materials, types of construction, and details for bridges and buildings. (3). Prerequisite: Sophomore standing.

ELECTRICAL ENGINEERING

- 20a. ILLUMINATING ENGINEERING AND SECONDARY POWER DISTRIBUTION.—(Formerly E.E. 14). Fundamentals of illuminating engineering and lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. (3). Open only to students in electrical engineering. Prerequisite: Sophomore standing in electrical engineering.
- 21a. INTRODUCTION TO ELECTRODYNAMICS.—Study of units and relations in electrostatic, magnetostatic, and electromagnetic circuits; characteristics of circuit parameters singly and in combinations. (3). Prerequisite: Physics 1a, 3a; Mathematics 7; registration in Physics 1b, 3b, Mathematics 9.

GENERAL ENGINEERING DRAWING

- ELEMENTS OF DRAWING.—Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. (4). Seniors receive only three hours credit. Prerequisite: Plane geometry.

2. **DESCRIPTIVE GEOMETRY.**—Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing, etc. (4). Prerequisite: Plane and solid geometry, G.E.D. 1 or 4.
3. **AIRCRAFT DRAFTING AND LOFTING.**—Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting of plane—tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. (2). Prerequisite: General Engineering Drawing 1 or 4, and 2.
4. **ADVANCED DRAWING.**—Review of orthographic projection and working drawings; isometric, oblique, perspective, chart and diagram, topographical, architectural, and structural drawing. (4). Prerequisite: Three years of high school drawing, or the equivalent.
6. **ELEMENTS OF DRAWING.**—Same topics covered as in General Engineering Drawing 1 plus piping and perspective drawing. For students in chemical and metallurgical engineering. (3). Prerequisite: Plane geometry.
7. **ARCHITECTURAL PROJECTIONS.**—Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. (2). Prerequisite: Plane geometry.
8. **ARCHITECTURAL PROJECTIONS (CONTINUED).**—Shades and shadows; oblique, isometric, and perspective drawing; developments. (2). Prerequisite: General Engineering Drawing 7.
10. **PICTORIAL DRAWING.**—Review of perspective and of shades and shadows; rendering of drawings in pencil, pastel, and water colors; elementary design and study of proportion. (3). Prerequisite: General Engineering Drawing 2.
12. **GRAPHICAL CALCULATIONS.**—Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula of the College of Engineering. (1). Prerequisite: General Engineering Drawing 1; Mathematics 6a.

MECHANICAL ENGINEERING

37. **MECHANISM.**—A study of the transmission and modification of motion by link-work, cams, gears, belts, ropes, chains, etc.; theory of gear tooth action; gear tooth systems and production methods; point paths, displacement diagrams. (2). Prerequisite: Registration in Mathematics 7.
81. **PATTERN, FOUNDRY, AND WELDING LABORATORY.**—Metallurgy of gray iron; floor, bench, and machine molding; core making; brass furnace and cupola practice; sand testing; welding methods and practice. (2). Prerequisite: Sophomore standing; General Engineering Drawing 1 or 4.
82. **MACHINE TOOL LABORATORY FOR AERONAUTICAL ENGINEERS.**—Operation and function of lathes, planers, milling machines, turret lathes, and gear cutting machines in the production of interchangeable parts; the use of jigs and fixtures in quantity production to reduce cost and insure interchangeable parts. (1). Prerequisite: Sophomore standing, General Engineering Drawing 1.

85. **PATTERN AND FOUNDRY LABORATORY.**—Design of wood and metal patterns; metallurgy of gray iron; floor, bench, and machine molding; core making; brass furnace and cupola practice; sand testing. (3). Prerequisite: Sophomore standing; General Engineering Drawing 1 or 4.
87. **MACHINE TOOL LABORATORY.**—Machine tools; use of fixtures, jigs, and tools for producing interchangeable parts. (3). Prerequisite: Sophomore standing; General Engineering Drawing 1 or 4.

PHYSICS

- a. **GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT).**—Lectures with demonstrations and recitations. For students in engineering, mathematics, physics, and chemistry. (4). Prerequisite: Mathematics 2 and 4; registration in Physics 3a.
- Note: Beginning September, 1948, registration in Math. 7 will be an additional prerequisite for Phys. 1a and 3a.
- b. **GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT).**—(4). Prerequisite: Physics 1a; registration in Physics 3b.
- a. **GENERAL PHYSICS LABORATORY.**—To accompany Physics 1a. (1). Prerequisite: Physics 1a, or registration therein.
- b. **GENERAL PHYSICS LABORATORY.**—To accompany Physics 1b. (1). Prerequisite: Physics 1b, or registration therein.
- a. **GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT).**—Lectures with demonstrations and recitations. For students in arts and sciences, and architecture. (4). Prerequisite: Trigonometry; registration in Physics 8a.
- b. **GENERAL PHYSICS (LIGHT, ELECTRICITY, AND MAGNETISM).**—(4). Prerequisite: Physics 7a; registration in Physics 8b.
- a. **GENERAL PHYSICS LABORATORY.**—To accompany Physics 7a. (1). Prerequisite: Physics 7a, or registration therein.
- b. **GENERAL PHYSICS LABORATORY.**—To accompany Physics 7b. (1). Prerequisite: Physics 7b, or registration therein.

THEORETICAL AND APPLIED MECHANICS

- ANALYTICAL MECHANICS (STATICS).**—Force systems; equilibrium; centroids; center of gravity; friction. (2). Prerequisite: Registration in Mathematics 9.
- ANALYTICAL MECHANICS (DYNAMICS).**—Kinematics and kinetics. (3). Prerequisite: Theoretical and Applied Mechanics 1.
- 18. **ELEMENTS OF MECHANICS (STATICS) AND STRENGTH OF MATERIALS.**—Force systems; equilibrium; friction, centroids; direct stress, riveted joints, beams, moment of inertia, deflection, columns. For architects and others who have not taken calculus. (3). Prerequisite: Mathematics 6a.

General engineering drawing lab



ARCHITECTURE

(Offered under the College of Engineering)

THE BUSINESS OF the architect is to conceive, design, and superintend the construction of buildings of any character, from the smallest to the largest, including homes, churches, schools, hospitals, hotels, factories, office buildings, etc. While architecture is in a sense a Fine Art, the architect must understand not only the principles of design but also the procedure of construction.

Since the practice of architecture is so diversified that no one can encompass it in all its details, some degree of specialization is necessary. In order to train future architects, two options are offered: general architecture and architectural engineering. A general understanding of the profession of architecture from the standpoint of design, safety, and economy, and of the architect's duties, is emphasized in both options. The first year of work is identical in both; a field of specialization is selected in the second year.

The general architecture option places the major emphasis on architectural design and includes a substantial program in architectural engineering. While the aesthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The architectural engineering option offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes two years of architectural design, freehand drawing, and the history of architecture, the student primarily interested in architectural engineering can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business engineering, and language and literature. It also provides sufficient training for independent practice as an architectural engineer.



Sketching
the skyline

Electives

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 1a, 1b, 2a, Mathematics 2, 3, 4, 5, 6, Botany 1a, 1b, Geography 1, Geology 1, Zoology 1.

CURRICULUM IN ARCHITECTURE

This curriculum which requires 142 semester hours for graduation emphasizes architectural design in training students for service as draftsmen, designers in architectural organizations and for independent practice.

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 31—Architectural Design.....	3	Arch. 32—Architectural Design.	3
Art 21a—Freehand Drawing.....	2	Art 21b—Freehand Drawing.....	2
G.E.D. 7—Architectural Projections...2		G.E.D. 8—Architectural Projections...2	
Rhet. 1—Rhetoric and Composition...3		Rhet. 2—Rhetoric and Composition...3	
Math. 2—College Algebra.....	3	Math. 6a—Analytic Geometry.....	4
Math. 4—Trigonometry	2	Hygiene 2 or 5.....	2
Physical Education	1	Physical Education	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 13—History of Architecture....2		Arch. 14—History of Architecture....2	
Arch. 33—Architectural Design.....3		Arch. 34—Architectural Design.....3	
Arch. 43—Technology of Materials...3		Arch. 44—Technology of Materials...3	
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
T.A.M. 17—Elements of Mechanics...3		T.A.M. 18—Strength of Materials...3	
Physical Education	1	Physical Education	1
<i>Total</i>	19	<i>Total</i>	19

CURRICULUM IN ARCHITECTURAL ENGINEERING

First Year

(Identical with curriculum in Architecture)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 13—History of Architecture....2		Arch. 14—History of Architecture....2	
Arch. 33—Architectural Design.....3		Arch. 34—Architectural Design... ..3	
Art 22a—Freehand Drawing.....	2	Art 22b—Freehand Drawing.....	2
Math. 7—Differential Calculus.....	5	Math. 9—Integral Calculus.....	3
Phys. 7a—General Physics.....	4	Phys. 7b—General Physics.....	4
Phys. 8a—General Physics Lab.....	1	Phys. 8b—General Physics Lab.....	1
Physical Education	1	T.A.M. 1—Analytical Mech. (Statics) .2	
		Physical Education	1
<i>Total</i>	18	<i>Total</i>	18

COURSES OF INSTRUCTION

ARCHITECTURE

13. ARCHITECTURE AND CIVILIZATION OF THE EARLY MEDITERRANEAN AREAS.—An analysis of space and form in Egypt, West Asia, Greece, and Rome. (2). Prerequisite: Architecture 31 or 32.
14. ARCHITECTURE AND CIVILIZATION OF EUROPE AND ISLAM, A.D. 300 to 1200.—(2). Prerequisite: Architecture 13.
- 31-32. ARCHITECTURAL DESIGN.—Beginning study of architectural planning and designing; Fundamentals of sketching and presentation. (3). small buildings. (3). Prerequisite: Architecture 32.
- 33-34. ARCHITECTURAL DESIGN.—Continued study of architectural planning and designing; study of principles of plan, elevation, and section of
43. MATERIALS AND METHODS OF CONSTRUCTION.—Methods and materials of wood frame construction; manufacture and uses of allied materials; working drawings; detailing. (3). Prerequisite: Architecture 32.
44. MATERIALS AND METHODS OF CONSTRUCTION.—Methods of masonry and fireproof construction; manufacture and uses of materials of such construction; working drawings; detailing. (3). Prerequisite: Architecture 43, or consent of instructor.

ART

- 21a-21b. FREEHAND DRAWING.—Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal. (2).
- 22a-22b. FREEHAND DRAWING (CONTINUED).—Primarily for students in architecture and landscape architecture. Charcoal drawing from the cast; water color. (2). Prerequisite: Art 21b.



Archite
at wor

COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

THROUGH KNOWLEDGE of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for underclassmen. Though the factual contents of many of the courses are directly useful in specific vocations—accounting, banking, selling, teaching—students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

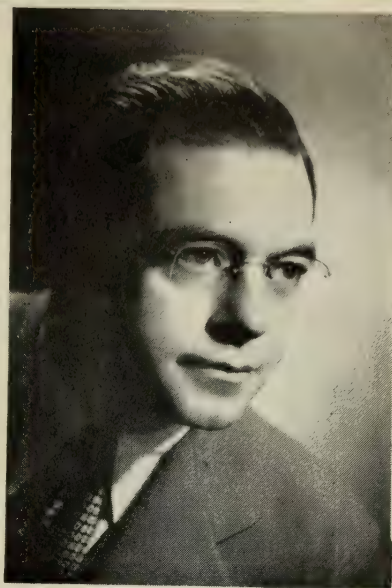
The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Many of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must (1) meet the general University requirements with respect to registration, residence, scholarship, and fees; (2) have a minimum of 130 semester hours of credit, including credit for the required work in rhetoric, hygiene, physical education, and military science,



Robert P. Hackett, Associate Dean,
Commerce and Business Administration

and including a minimum of 60 hours in courses given in the College of Commerce; and (3) complete the requirements of one of the fields of concentration (accountancy, banking and finance, commerce and law, commercial teaching, economics, industrial administration, management, marketing, or public affairs) with an average grade of not less than "C" in all courses counted toward graduation, whether taken at the University of Illinois or elsewhere.

PROGRAM FOR THE LOWER DIVISION¹

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 1a or 1c—Principles of Accounting	3 or 2	Accy. 1b—Accounting Procedure	3
Econ. 22—Economic History of U.S.	3	Econ. 27—Introduction to Business	3
Rhet. 1—Rhetoric and Composition	3	Rhet. 2—Rhetoric and Composition	3
Science and/or College Algebra ²	5-8	Science and/or College Algebra ²	3-5
Physical Education	1	Hygiene 2 or 5	2
		Physical Education	1
<i>Total</i>	14-18	<i>Total</i>	15-17

Second Year

Accy. 2a—Cost Accounting	3	Accy. 2b—Intermediate Accounting	3
Econ. 1a—Principles of Economics	3	Econ. 1b—Principles of Economics	3
Language or Literature ³	4	Language or Literature ³	4
Two of the following three:		One of the following:	
Econ. 70—Elementary Statistics	3	Econ. 70—Elementary Statistics	3
Rhet. 10—Business Letter Writing	2	Rhet. 10—Business Letter Writing	2
Speech 1—Effective Speaking	3	Speech 1—Effective Speaking	3
Physical Education	1	Physical Education	1
<i>Total</i>	16-17	<i>Total</i>	14-18

¹ Students interested in commercial teaching should contact the Dean of the College.

² Mathematics and Science — All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, geography, geology, mathematics, physics, physiology, zoology.

³ Language — Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college.



Illustrations in
economic geography

COURSES OF INSTRUCTION

ACCOUNTANCY

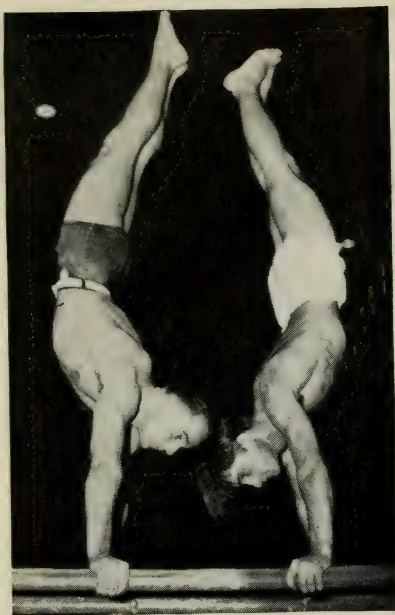
- 1a. **PRINCIPLES OF ACCOUNTING.**—Simple transactions, accounts, books, statements; trial balances, adjustments; partnerships. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 1a and should register in Accountancy 1e. (3). Seniors receive only two hours credit.
- 1b. **ACCOUNTING PROCEDURE.**—Relation of business documents to accounts; balance sheet and income statement. (3). Seniors receive only two hours credit. Prerequisite: Accountancy 1a or 1e.
- 1e. **PRINCIPLES OF ACCOUNTING.**—Similar to Accountancy 1a, for those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 1a are permitted to register in Accountancy 1e and receive credit as in Accountancy 1a if their final grade is "C" or above. (2). Seniors receive only one hour credit. Prerequisite: One unit of entrance credit in bookkeeping.
- 2a. **ELEMENTARY COST ACCOUNTING.**—Departmental, process, sequential, and job lot cost; cost records and procedures; disposition of burden. (3). Prerequisite: Accountancy 1b; registration or credit in Economics 1a or 2.
- 2b. **INTERMEDIATE ACCOUNTING.**—Depreciation; corporation accounts; interpretation of balance sheet and income statements. (3). Prerequisite: Accountancy 2a.

ECONOMICS

- 1a. **PRINCIPLES OF ECONOMICS.**—Value, price, money, exchange, distribution, consumption, and other fundamental concepts. (3). Prerequisite: One year of university work.
- 1b. **PRINCIPLES OF ECONOMICS (CONTINUED).**—(3). Prerequisite: Economics 1a.
2. **ELEMENTS OF ECONOMICS.**—A briefer presentation of the matter covered in Economics 1a-1b. For non-commerce students. (3). Prerequisite: One year of university work.
22. **ECONOMIC HISTORY OF THE UNITED NATIONS.**—Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only. (3).
27. **INTRODUCTION TO BUSINESS.**—Survey of principles and practices, from the point of view of the business manager. Open to freshmen who have had one semester of university work. (3).
70. **ELEMENTS OF STATISTICS.**—Methods of collection, presentation, and interpretation of quantitative economic data; averages; dispersion, index numbers, time series analysis, and simple correlation. (3). Prerequisite: Economics 1a or 2; sophomore standing.

Pointers in
statistics





Hold that pose

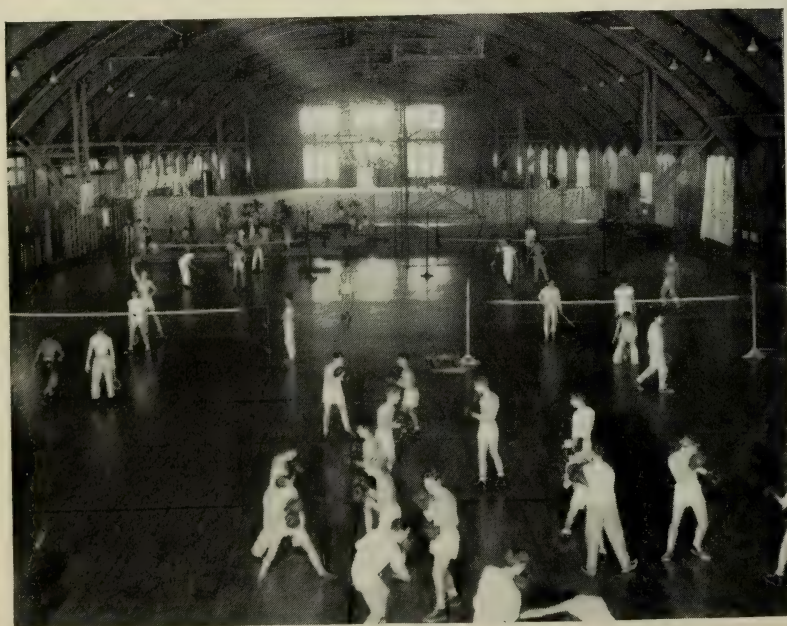
PHYSICAL EDUCATION

ALL STUDENTS, except veterans who have fulfilled the four-hour physical education requirement while in the service, are required to take physical education each semester until four credit hours have been earned. Physical education may be deferred only by written request through the Physical Education Department which will make recommendation to the dean of the student's college.

Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce.

Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses such as adapted sports and prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week (for 1 hour) or two times a week (for 1½ hours). All general courses in physical education carry one hour of credit.



**Workout in
the gym**

COURSES OF INSTRUCTION

PHYSICAL EDUCATION FOR MEN

- 20a, 20b, 20c, 20d. PRESCRIBED EXERCISES. — Open only to students who are assigned by the Health Service. (1).
22. BADMINTON. — (1).
23. VOLLEYBALL. — (1).
24. BEGINNING SWIMMING. — (1).
25. INDIVIDUAL TUMBLING. — (1).
26. DOUBLE TUMBLING. — (1).
27. APPARATUS STUNTS. — (1).
28. BOXING. — (1).
29. WRESTLING. — (1).
44. HANDBALL. — (1).
53. WEIGHT LIFTING. — (1).
50. BASIC PHYSICAL FITNESS. — (1).



Strike!

PHYSICAL EDUCATION FOR WOMEN

51. ELEMENTARY RHYTHMS. — (1).
52. INTERMEDIATE RHYTHMS. — (1).
56. INDIVIDUAL GYMNASTICS. — Recommendation from Department of Health Service is necessary for registration in this course. (1).
58. TEAM SPORTS. — Basketball, softball, speedball, volleyball, tennis. (1).
59. BOWLING. — (1).
50. INDIVIDUAL AND DUAL SPORTS. — Archery, badminton, golf. (1).
2. FUNDAMENTALS OF MOTOR FITNESS. — (1).
4. ELEMENTARY SWIMMING. — (1).
8. AMERICAN SQUARE DANCE. — (1).
9. ELEMENTARY FOLK DANCING. — (1).



ACADEMIC PERSONNEL

Chicago Undergraduate Division

FULL PROFESSORS

Erskine, Earl Bradley, M.D., Director of Health Service.
Hoelscher, Randolph Phillip, M.S., C.E., Associate Dean of the College of Engineering;
Professor of General Engineering Drawing.

VISITING PROFESSOR

Nowlan, Frederick S., Ph.D., Professor of Mathematics, University of British Columbia,
Canada.

ASSOCIATE PROFESSORS

Bailey, Harold Wood, Ph.D., LL., Associate Dean of the College of Liberal Arts and
Sciences, Professor of Mathematics.
Barber, Hollis William, Ph.D., Associate Professor of Social Sciences.
Carlson, Clarence I., B.S., Associate Professor of General Engineering Drawing.
Corliss, John Johnson, Ph.D., Associate Professor of Mathematics, Chairman of Mathe-
matics Division.
Hackett, Robert Phillip, Ph.D., Associate Dean of College of Commerce and Business
Administration; Professor of Accountancy.
Haines, Russel D., M.S., C.P.A., Associate Professor of Accountancy.
Hopkins, Dwight Lucian, Ph.D., Associate Professor of Biological Sciences and Chair-
man of the Division of Biological Sciences.
Jones, John Oliver, M.S., Associate Professor of Physical Education for Men; Head of
Physical Education Department.
Kozacka, Joseph Stanley, M.S., Associate Professor of Mechanical Engineering, in charge
of Shop Laboratories.
Mayrand, Elizabeth, B.S., M.D., Associate Professor of Hygiene and Medical Adviser for
Women.
McEldowney, Harold B., B.S., Associate Professor of Architecture and Head of the De-
partment of Architecture.
Riddle, Donald Wayne, Ph.D., Associate Professor of Social Sciences and Chairman of
the Division of Social Sciences.
Van Keuren, Ernest Canfield, Ph.D., Associate Professor of English and Chairman of the
Division of Humanities.

ASSISTANT PROFESSORS

Babler, Bernard Joseph, Ph.D., Assistant Professor of Physical Sciences.
Barton, Helen M., Ed.D., Assistant Professor of Physical Education for Women.
Bucher, Gladys Rosalin, Ph.D., Assistant Professor of Biological Sciences.
Cobb, Arnold C., M.S., Assistant Professor of Engineering.
Cutshall, Alden, Ph.D., Assistant Professor of Social Sciences.
DeFilipps, Anthony Joseph, B.S., Assistant Professor of Architecture.
Derrick, Lucile, Ph.D., Assistant Professor of Economics.
Dewey, Mrs. Rebecca Arnell, Ph.D., Assistant Professor of English.
Fox, Samuel, Ph.D., M.B.A., J.D., LL.M., Assistant Professor of Accountancy.
Frank, Evelyn, Ph.D., Assistant Professor of Mathematics.
Gillett, Clarence Henry, M.T.L., Assistant Professor of Economics.
Goppert, Harold Rinehart, M.D., Assistant Professor of General Engineering Drawing.
Grampp, William Dyer, Ph.D., Assistant Professor of Accountancy.
Greene, Paul C., Dr., Director of Student Personnel Bureau, Assistant Professor of
Psychology.
Groves, James Frederick, Ph.D., Assistant Professor of Biological Sciences.

(Assistant Professors—Continued)

- Gum, Mrs. Wanda Newsum, Ph.D., Assistant Professor of Social Sciences, Staff Counselor in Student Personnel Bureau.
- Gutnayer, Joseph M., E.S.A., D.P.L.G., Assistant Professor of Architecture.
- Harris, Roscoe E., Ph.D., Assistant Professor of Physics, Head of Department.
- Hershey, Arthur W., M.S., Assistant Professor of Electrical Engineering.
- Kenny, Mrs. Anna W., Ph.D., Assistant Professor of English.
- Lipman, Eli Allan, Ph.D., Assistant Professor of Social Sciences and Staff Counselor in Student Personnel Bureau.
- Machin, Charles, Ph.D., Assistant Professor of General Engineering Drawing.
- Mansfield, Joseph Victor, Ph.D., Assistant Professor of Physical Sciences.
- Maxfield, David Kempton, M.S., Librarian, Assistant Professor of Library Science.
- McCaughey, William Frank, M.S., Assistant Professor of Architecture.
- Meloy, Carl Ridge, Ph.D., Assistant Professor of Physical Sciences and Chairman of the Division of Physical Sciences.
- Morris, Daniel J., Ph.D., Assistant Professor of Social Sciences.
- Moore, Eunice Martha, Ph.D., Assistant Professor of Physical Sciences.
- Nicholson, Robert Lawrence, Ph.D., Assistant Professor of Social Sciences.
- Pickett, Arthur David, M.S., Assistant Professor of Biological Sciences, Assistant to Associate Dean of Liberal Arts and Sciences, Staff Counselor in Student Personnel Bureau.
- Price, Rupert Maurice, M.A., Assistant Professor of Physics, Assistant to Associate Dean of College of Engineering, Staff Counselor in Student Personnel Bureau.
- Sanchez, Jose, Ph.D., Assistant Professor of Foreign Languages.
- Schermerhorn, James Ray, M.S., Assistant Professor in Mechanical Engineering.
- Schuyler, William Moorhouse, Ph.D., Assistant Professor in Foreign Languages.
- Shapiro, Samuel Emanuel, B.S., Assistant Professor in General Engineering Drawing.
- Shopen, Kenneth, A.B., Assistant Professor of Art, Head of the Department.
- Smith, Henry Ernest, Ph.D., Assistant Professor of English.
- Silbergeld, Sam, Ph.D., Assistant Professor of Physical Sciences.
- Stubblefield, Frank Milton, Ph.D., Assistant Professor of Physical Sciences.
- Thompson, Wayne N., Ph.D., Assistant Professor of English, Head of Department of Speech.
- Vardaman, Mrs. Hazel Clare, Ph.D., Assistant Professor of Foreign Languages.
- Walraven, Harvey Dale, M.A., Assistant Professor of General Engineering Drawing.
- Willner, Ernest Steven, Ph.D., Assistant Professor of Foreign Languages.
- Weaver, Willis K., Ph.D., Assistant Professor of Physical Sciences.

INSTRUCTORS

- Abeles, Wilhelmina, A.M., Instructor in Foreign Languages.
- Adelman, Mrs. Constance Katz, A.B., Instructor in Foreign Languages.
- Alberti, Furio, B.S., Instructor in Mathematics.
- Anderson, William Raymond, M.S., Instructor in Mathematics.
- Azark, Irene, A.M., Instructor in Mathematics.
- Bates, John Frederick, B.S., Instructor in Physics.
- Berg, Edwin Weidenaar, B.A., M.B.A., Instructor in Accountancy.
- Berglund, Winifred Virginia, A.M., Instructor in Mathematics.
- Berrefato, Peter Robert, B.S., Instructor in Physical Education for Men.
- Bild, Bernice, M.A., Personnel Technician with rank of instructor in Student Personnel Bureau.
- Bill, Mrs. Shirley Kerman, A.M., Instructor in Social Sciences.
- Binder, Betty Jean, A.M., English.
- Bolle, Miss Elva Jane, B.S., Instructor in Physical Education for Women.
- Braunfeld, Mrs. Johanna, A.M., Instructor in Foreign Languages.
- Bromley, Mrs. Priscilla Price, A.M., Instructor in Social Sciences.

(Instructors—Continued)

Broussard, Louis, A.M., Instructor in English.
Brown, Gleah D., A.M., Instructor in English.
Burkholder, Paul, M.S., Instructor in Physical Sciences.
Burr, Edward Everett, B.F.A., Instructor in Art.
Byam, Joan Ethel, A.M., Instructor in English.
Byrne, Alice, M.S., Instructor in Biological Sciences.
Capparelli, Mrs. Ferdina J., A.M., Instructor in Foreign Languages.
Cass, Myron, A.B., Instructor in Physical Sciences.
Cassell, Robert Ludlow Sherwood, A.M., Instructor in English.
Castleberry, Herman Paul, A.M., Instructor in Social Sciences.
Chaderton, Julian Cuthbert, B.S., Instructor in Civil Engineering.
Cohn, Marion D., A.M., Instructor in Foreign Languages.
Colby, Mrs. Mary McRae, M.S., Instructor in Social Sciences.
Conners, Paul Horn, Jr., M.S., Instructor in Physical Sciences.
Cowles, Harriet Elizabeth, A.M., Instructor in Foreign Languages.
Cramer, Glenn E., B.S., Instructor in Foundry and Pattern Laboratory.
Crews, Mrs. Janice Meredith, A.M., Instructor in English.
Croft, Marjorie Lillian, A.M., Instructor in Mathematics.
Daggett, Robert Frost, Jr., B.F.A., Instructor in Architecture.
DeCarolis, Julius Joseph, M.S., Instructor in General Engineering Drawing.
Dembski, Marion Vincent J., B.S., General Engineering Drawing.
Denny, Mrs. Martha Quick, A.M., Instructor in English.
Donohue, Mrs. Agnes M., A.M., Instructor in English.
Driscoll, Mae Anna, M.S., Instructor in Physics.
Dunne, William Joseph, M.B.A., Instructor in Economics.
Eggebrecht, Dorothy A., M.B.A., Instructor in Accountancy.
Eller, Marian B., A.M., Associate Counselor, Student Personnel Bureau, Instructor in Psychology.
Elliston, Richard Harold, B.S., Instructor in Physical Sciences.
Engelbrecht, Margie Trienje, B.F.A., Instructor in Art.
Faughnan, Mrs. Rita Johnson, M.S., Instructor in Biological Sciences.
Feinstein, Irwin Keith, A.M., Instructor in Mathematics.
Finamore, John Morton, B.S.C., J.D., Instructor in Economics.
Findlay, James E., B.S., Instructor in General Engineering Drawing.
Finney, Mrs. Mildred Smith, A.M., Instructor in Social Sciences.
Fox, Mary Jane, M.S., Instructor in Physical Sciences, Staff Counselor in Student Personnel Bureau.
Froseth, Alice Jean, M.S., Instructor in Mathematics.
Fuller, John Bernard, Ph.D., Instructor in Foreign Languages.
Fuller, Patricia Joan, B.S., Instructor in English.
Gaughan, Mary Angela, B.S., Instructor in Physical Sciences.
Gordon, Louis Isaac, M.S., Instructor in Mathematics.
Goulson, Mrs. Frances McCune, M.T.A., Instructor in English.
Graf, Henry Heart, Jr., M.B.A., Instructor in Economics.
Greenblau, Jerome, B.S., Instructor in Physical Sciences.
Grenard, Mrs. Madeleine P., A.M., Instructor in Mathematics.
Griest, Guinevere, A.M., Instructor in English.
Hannan, Jeanne A., A.B., Instructor in English.
Hans, Rudolph Frank, B.S., Instructor in General Engineering Drawing.
Harness, Robert B., A.B., B.S., Assistant Reference-Circulation Librarian with rank of instructor.
Hartoch, Arnold J., M.A., Instructor in Foreign Languages.
Heffernan, Patricia Ann, B.S., Instructor in Physical Sciences.

(Instructors—Continued)

Heflin, Arnold P., M.S., Instructor in Physics.
Hegie, Mrs. Lucy Swindell, A.M., Instructor in English.
Henderson, Margaret Rebecca, A.M., Instructor in English.
Hipple, Mrs. Eleanor Karlstrom, A.M., Instructor in English.
Hodges, Lorna Ann, B.S., Instructor in Physical Sciences.
Holladay, Mrs. Dee Mette, A.B., B.S., Instructor in Physics.
Holley, Jasper Wilson, M.A., Instructor in Social Sciences.
Hood, Mrs. Ellen G., B.S., Instructor in Physical Sciences.
Hornacek, Rose Louise, A.M., Instructor in Mathematics.
Hovde, Helen Janet, A.M., Instructor in English.
Jackman, Willis Clifford, B.S., Instructor in English.
Johannes, Karl, A.M., Instructor in Mathematics.
Johnson, Herman Julian, M.S., Instructor in Physics, Staff Counselor in Student Personnel Bureau.
Johnson, Josephine Ann, M.B.A., Instructor in Accountancy.
Jones, Stanley Llewellyn, M.A., Instructor in Social Sciences.
Kabbes, Sarah Madonna, M.B.A., Instructor in Accountancy.
Kahler, Frederick August, A.B., Instructor in Engineering.
Kell, Sherman Little, A.M., Instructor in Physical Sciences.
Kelly, Virginia Anne, A.M., Instructor in Foreign Languages.
Kennedy, Robert Edwin, B.S., Instructor in Foundry and Pattern Laboratory.
Kerwick, Mrs. Marion Stone, A.M., Instructor in English.
Kleyser, Dixon Baker, B.S., Instructor in Physical Education for Men.
Libert, Vincetta Virginia, M.S., Instructor in Physics.
Liley, Jeanne A., B.S., Instructor in Physical Sciences.
Ling, Mrs. Joy Lucile, B.S., Instructor in English.
Lirstein, Laurette Anne, A.M., Instructor in English.
Llassen, Peter Pierre, M.A., Instructor in Social Sciences.
Ludson, Edward Chevalier, A.B., Instructor in Economics.
Loranda, Frank Louis, M.S., Instructor in Physical Sciences.
Lulbarsh, Harold, M.S., Instructor in Physical Sciences.
Lusch, Monica Henrietta, M.S., Instructor in Social Sciences.
Luvieri, Rose, A.B., Instructor in Mathematics.
Latham, Ora Florence, A.M., Instructor in Mathematics.
Lbold, William Kerns, B.E.E., Instructor in Electrical Engineering.
Lvin, Howard S., B.S., Instructor in Mathematics.
Lvitt, Joseph, B.M.E., Instructor in Physics.
Lvy, Martin J., B.S., Instructor in General Engineering Drawing.
Lttle, Ellis Beecher, M.S., Instructor in Biological Sciences.
Lvermore, Ogden, M.A., Instructor in Physics.
Lve, Mrs. Willie Nell, A.M., Instructor in English.
Lackin, Mrs. Martha, M.S., Instructor in Physical Sciences.
Larsh, Robert Charles, M.A., Instructor in Social Sciences.
LDonald, Clarence Thomas, Jr., B.S., Instructor in Mechanical Engineering.
LGuire, Blanche Bertilla, A.B., Instructor in English.
Lerkhofer, Beatrice E., A.M., Instructor in Mathematics, Staff Counselor in Student Personnel Bureau.
Lerriam, Elsey Evans, B.S., B.L.S., Catalog-Acquisition Librarian, Instructor in Library Catalog.
Lrten, Horace George, A.M., Instructor in English.
Lchels, Charles John, M.S., Instructor in Engineering.
Lkolajczyk, Henry Louis, A.M., Instructor in Architecture.
Lller, Robert Lee, A.B., Instructor in Physical Sciences.
Lorris, Daniel J., Ph.D., Instructor in Social Sciences.

(Instructors—Continued)

- Moureau, Reinhard Clarence, B.S., Instructor in Mathematics.
Mucha, Theodore Alexander, Ed.M., Instructor in General Engineering Drawing.
Munzer, Charlotte M., A.B., Instructor in English.
Muirhead, Peggy Porter, M.S., Instructor in Biological Sciences.
Nagai, Inez, M.S., Instructor in Physical Education for Women.
Neumann, Mrs. Ilse Emma, Lehrberechaigung fur-Hohere Jehulen, Instructor in Foreign Languages.
Newby, George Eugene, Jr., B. Ed., Instructor in General Engineering Drawing.
Niederman, Sara C., A.M., Instructor in English.
Nolan, Grace Marie, A.M., Instructor in Mathematics.
Norem, Quentin Eugene, B.S., Instructor in Physics.
Nystrom, Janice, M.B.A., Instructor in Economics.
Ogden, Mrs. Phyllis White, A.M., Instructor in Foreign Languages.
Ojalvo, Morris Solomon, B.M.E., Instructor in Physics.
Olsen, Charles Eugene, B.S., Instructor in Mathematics.
Olson, Mrs. Bernice Fisher, A.M., Instructor in English.
Olson, Mrs. Ann Jones, M.A., Instructor in Foreign Languages.
Ondrak, Thomas B., A.B., Instructor in Mathematics.
Ostergren, Eugene George, A.B., Instructor in Mathematics.
Ostergren, Susanne, A.M., Instructor in English.
Parkin, Marjorie M., M.S., Instructor in Physical Education for Women.
Pennisi, Louis Legendre, M.S., Instructor in Mathematics.
Perkins, Roy Burchard, B.S., Instructor in General Engineering Drawing.
Pinsky, Sylvia, A.M., Instructor in Foreign Languages.
Presley, Halina J., A.M., Instructor in Biological Sciences.
Quinlan, Kathryn Helen, A.M., Instructor in English.
Rabin, Rudolph, A.M., Instructor in Physical Sciences.
Richards, Charles Lewis, Instructor in Shop Laboratories.
Richardson, John Frederick, A.M., Instructor in Art.
Richey, Mildred June, A.M., Instructor in English.
Ridley, Theodore Edmund, M.B.A., Instructor in Economics, Staff Counselor in Student Personnel Bureau.
Rosenbeck, Marian C., M.S., Instructor in Mathematics.
Ross, George MacLeod, M.E., Instructor in General Engineering Drawing.
Rubenstein, Mrs. Harriet K., M.S., Instructor in Biological Sciences.
Rudin, Cecilia Margaret, A.M., Instructor in English.
Savage, Joan Hodnett, A.B., Instructor in English.
Schwartz, Cecil, B.S., Instructor in Physical Sciences.
Schroeder, Roy Wilbur, Instructor in Foundry and Pattern Laboratory.
Searls, Mrs. Virginia W., A.M., Instructor in Social Sciences.
Sears, Mrs. Helen Wright, A.M., Instructor in Mathematics, Staff Counselor in Student Personnel Bureau.
Shield, Robert William, B.A., Instructor in Architecture.
Shudeman, Conrad Louis B., Ph.D., Instructor in Physics.
Siegle, Peter Eugene, A.M., Instructor in Social Sciences, Staff Counselor in Student Personnel Bureau.
Silkett, Albert F., A.B., Instructor in Physics, Staff Counselor in Student Personnel Bureau.
Silberg, Samuel S., B.M.E., Instructor in General Engineering Drawing.
Skadeland, Harold M., A.M., Instructor in Physics.
Skogen, Mrs. Clara Stenman, A.B., Instructor in Foreign Languages.
Smith, Steele Bryan, B.S., Instructor in General Engineering Drawing.
Snyder, Ray Edward, B.S., Instructor in Physics.
Socular, Sidney Joseph, Ph.D., Instructor in Physical Sciences.
Southern, Walter Arthur, A.B., Reference-Circulation Librarian with the rank of instructor

(Instructors—Continued)

Spitler, Wesley Newton, B.S., Instructor in General Engineering Drawing.
Stelling, Mrs. Lois Bradwell, B.S., Instructor in Mathematics.
Stone, Gregory Prentice, A.B., Instructor in Social Sciences.
Stuermer, Ray, B.S., Instructor in Architecture and Art.
Teichmann, Mrs. Elizabeth, A.M., Instructor in Foreign Languages.
Thale, Mary Agnes, A.M., Instructor in English.
Thomas, William F., Ph.D., Assistant Director, Student Personnel Bureau.
Timmis, Mrs. Beatrice Stephany, M.Mus. Ed., A.M., Instructor in English.
Wagman, Julius, B.S., Instructor in Physical Sciences.
Webster, Mrs. Lucille Jones, B.S., Instructor in English.
Willett, Maurita Frances, A.M., Instructor in English.
Williams, Mrs. Rena Medlin, B.S., Instructor in English.
Wilson, Charles Craig, B.Ed., Instructor in Mathematics.
Wright, Mrs. Elizabeth V., A.M., Instructor in English.
Wright, Paul Randall, M.S., Instructor in Physical Sciences.
Yankow, Henry George, Jr., A.M., Instructor in Accountancy.
Zerebko, Andrew Jerome, B.S., Instructor in Physics.
Zeimer, Jeanette Mary, M.S., Instructor in Physical Sciences.

ASSISTANTS

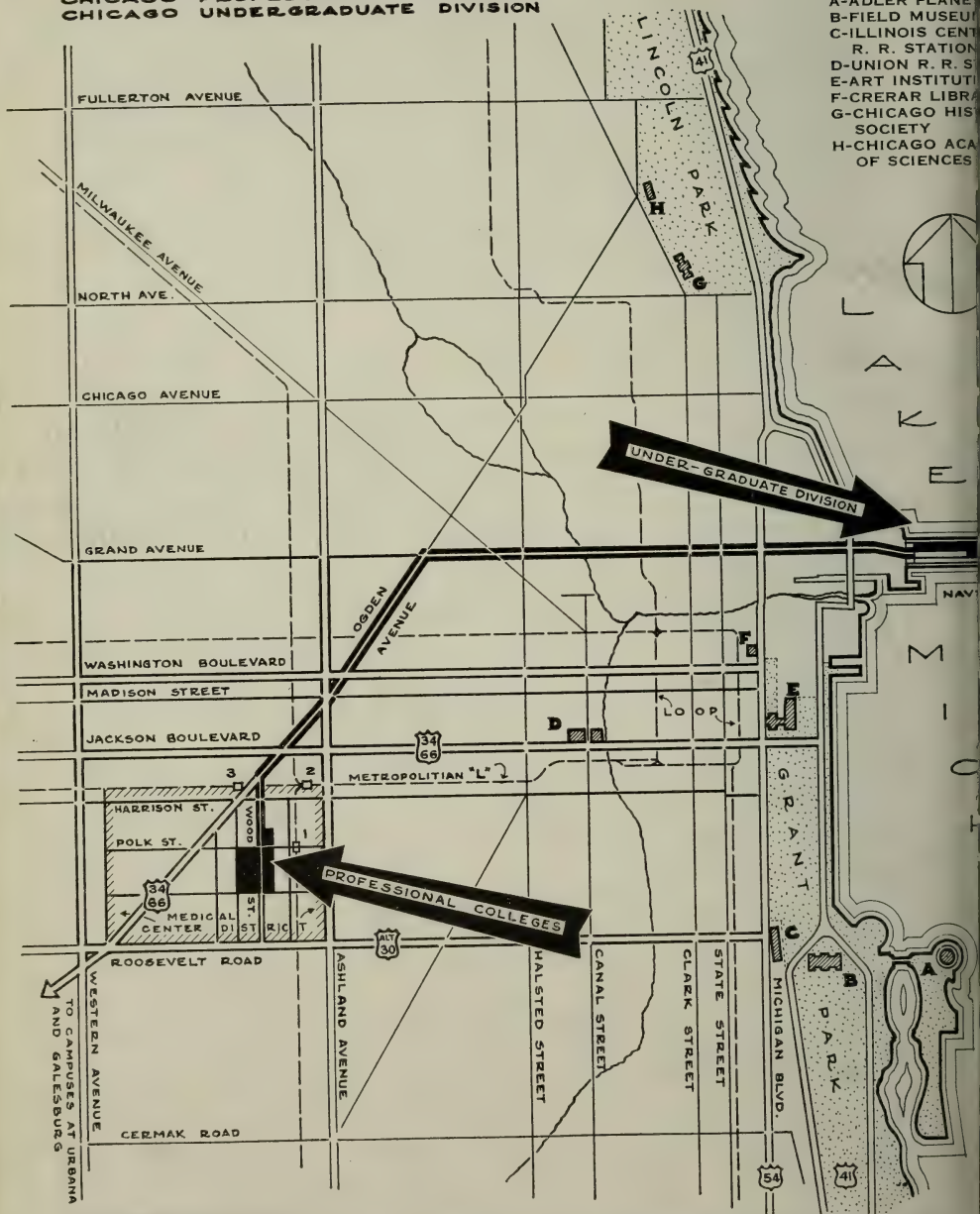
Ajzenberg, Fay, B.S., Assistant in Physics.
Berman, Herbert L., B.S., Assistant in Physics.
Dorfman, Allen Melnick, B.S., Assistant in Physical Education for Men.
Fordham, Sheldon, B.S., Assistant in Physical Education for Men.
Frey, Harold Jacob, B.S., Assistant in Physical Education for Men.
Gedvilas, Leo L., B.S., Assistant in Physical Education for Men.
Geldard, Mrs. Winifred B., A.M., Assistant in Economics.
Glojek, Joseph L., B.S., Assistant in Economics.
Johnson, Arthur J., B.S., Assistant in Accountancy.
Larson, Carl Martin, B.S., Assistant in Economics.
Morris, James Russel, M.B.A., Assistant in Economics.
O'Brien, Harriet Margaret, B.A., Assistant in Physics.
Schneider, Albert Joseph, B.S., Assistant in Accountancy.
Stampar, George J., M.S., Assistant in Physical Education for Men.
Strotz, Robert Henry, A.B., Assistant in Economics.
Williams, Henry Fortson, B.S., Assistant in Economics.

UNIVERSITY OF ILLINOIS

CHICAGO PROFESSIONAL COLLEGES
CHICAGO UNDERGRADUATE DIVISION

LEGEND—

- A-ADLER PLANE
- B-FIELD MUSEUM
- C-ILLINOIS CENTRAL R. R. STATION
- D-UNION R. R. STATION
- E-ART INSTITUTE
- F-CRERAR LIBRARY
- G-CHICAGO HISTORICAL SOCIETY
- H-CHICAGO ACADEMY OF SCIENCES



TRANSPORTATION—

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STREET CAR—ASHLAND CAR ON PAULINA ST., TRANSFER GRAND AVENUE.
"L" STATIONS: 1-POLK ST. 2-MARSHFIELD 3-OGDEN AVE., ALL TRAINS TO LOOP,
TRANSFER STONY ISLAND STREET CAR.

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UNIVERSITY OF ILLINOIS

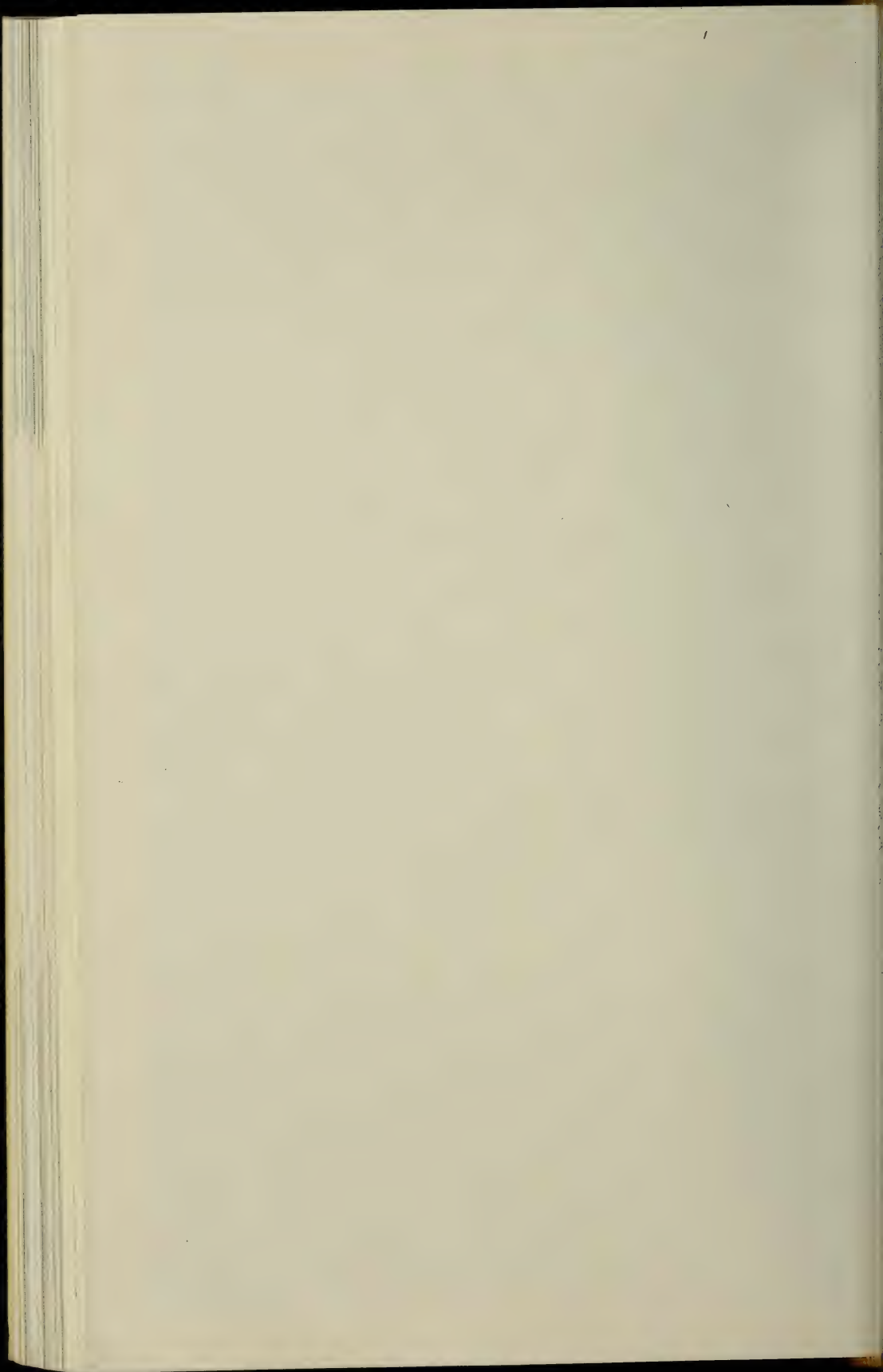
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UNIVERSITY OF ILLINOIS

Chicago
Undergraduate
Division







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CALENDAR

Chicago Undergraduate Division

Navy Pier

1948 — FIRST SEMESTER

Sept. 7, Tues.—Sept. 9, Thurs. Freshman Guidance Examinations
Sept. 13, Mon.—Sept. 16, Thurs. Registration
Sept. 17, Fri. Instruction Begins
Nov. 24, Wed., 12 noon Thanksgiving Vacation Begins
Nov. 29, Mon., 12 noon Thanksgiving Vacation Ends
Dec. 3, Fri. Illinois Day (State admitted to the Union in 1818)
Dec. 18, Sat., 1 p.m. Christmas Vacation Begins

1949 —

Jan. 3, Mon., 8 a.m. Christmas Vacation Ends
Jan. 17, Mon.—Jan. 25, Tues. Semester Examination

1949 — SECOND SEMESTER

Jan. 31, Mon.—Feb. 2, Wed. Freshman Guidance Examination
Feb. 7, Mon.—Feb. 10, Thurs. Registration
Feb. 11, Fri. Instruction Begins
Mar. 2, Wed. University Day (University opened in 1868)
Apr. 14, Thurs., 12 noon Easter Vacation Begins
Apr. 18, Mon., 12 noon Easter Vacation Ends
Apr. 29, Fri. Honors Day
May 30, Mon. Memorial Day
May 31, Tues.—June 8, Wed. Semester Examination

1949 — SUMMER SESSION

June 13, Mon., and June 14, Tues. Freshman Guidance Examination
June 20, Mon., and June 21, Tues. Registration
June 22, Wed. Instruction Begins
July 4, Mon. Independence Day
Aug. 12, Fri., and Aug. 13, Sat. Summer Session Examination

UNIVERSITY OF ILLINOIS

BOARD OF TRUSTEES

Members ex Officio

DWIGHT H. GREEN, Governor of Illinois.....Springfield
VERNON L. NICKELL, Superintendent of Public Instruction.....Springfield

Elected Members

Term 1943-1949

CHESTER R. DAVIS.....111 W. Washington Street, Chicago 2
DR. MARTIN G. LUKEN.....1448 Lake Shore Drive, Chicago 10
FRANK H. MCKELVEY.....1023 Woodland Avenue, Springfield

Term 1945-1951

WALTER W. MCLAUGHLIN.....Citizens Building, Decatur 30
DR. KARL A. MEYER.....Cook County Hospital, Chicago 12
KENNEY E. WILLIAMSON.....606 Lehmann Building, Peoria 2

Term 1947-1953

JOHN R. FORNOF.....122 S. Bloomington Street, Streator
MRS. DORIS S. HOLT.....330 E. Sixth Street, Flora
PARK LIVINGSTON.....20 N. Wacker Drive, Chicago 6

Officers of the Board

JOHN R. FORNOF, President.....122 S. Bloomington Street, Streator
HARRISON E. CUNNINGHAM, Secretary.....Urbana
ERVIN L. PORTER, Treasurer.....First National Bank, Chicago 90
LOYD MOREY, Comptroller.....Urbana

Committee on the Chicago Departments

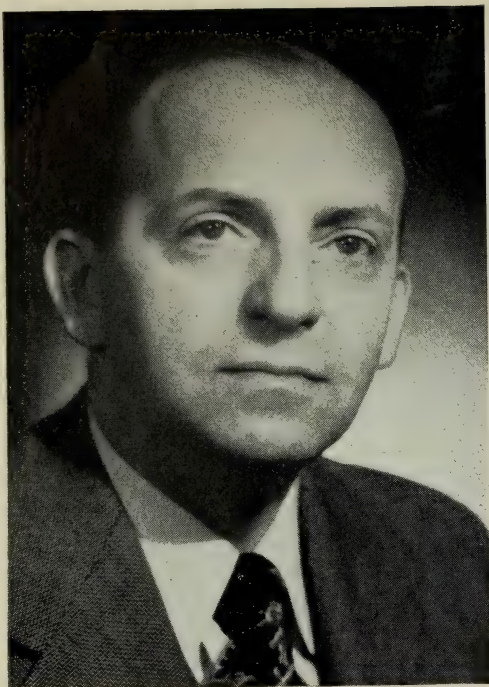
DR. KARL A. MEYER (Chairman), DR. MARTIN G. LUKEN,
CHESTER R. DAVIS, PARK LIVINGSTON

ADMINISTRATIVE OFFICERS AT URBANA

GEORGE DINSMORE STODDARD, Ph.D., Litt.D., L.H.D., LL.D.,
President of the University

COLEMAN ROBERTS GRIFFITH, Ph.D., LL.D., *Provost*

GEORGE PHILIP TUTTLE, B.S., *Director of Admissions and Records*



Charles C. Caveny
Dean

Dean's Message

THE CHICAGO UNDERGRADUATE DIVISION of the University of Illinois was established at Navy Pier in October, 1946, as a part of the program of the State to meet its share of the national emergency in higher education resulting from the overwhelmingly increased demand, primarily by veterans, for instruction at the university level.

Courses for freshmen and sophomores are offered in the College of Liberal Arts and Sciences, the College of Commerce, and the College of Engineering. In addition, architecture and architectural engineering curricula as a part of the College of Fine and Applied Arts are offered under the College of Engineering.

Courses of instruction are identical with those available in similar fields of undergraduate work on the Urbana campus. The fee schedule is identical with that at Urbana. Admission requirements are the same as those in effect on the Urbana campus.

Excellent classroom and laboratory equipment is provided, as well as library, study, food service, and recreational facilities. The University's interest in the individual student extends beyond the classroom to provide educational, vocational and personal guidance.

Every effort is made to integrate the instructional program with the cultural resources of the City of Chicago so as to provide a superior educational unit. The University, as a public institution, desires that every student shall have the best possible opportunity to develop his individual capacities to their fullest degree.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University's tradition.

ADMINISTRATIVE OFFICERS

Chicago Undergraduate Division

CHARLES C. CAVENY.....	Dean
HAROLD N. COOLEY.....	Assistant to the Dean
ROBERT E. PORTER.....	Assistant to the Business Manager
ROBERT P. HACKETT.....	Associate Dean Commerce and Business Administration
EDWIN A. WOLLESON.....	Dean of Students
WARREN O. BROWN.....	Dean of Men and Veterans Counselor Division of Special Services for War Veterans
RUTH E. LEITCH.....	Dean of Women
RANDOLPH P. HOELSCHER.....	Associate Dean Engineering Sciences
RUPERT M. PRICE.....	Assistant to the Dean Engineering Sciences
HAROLD E. TEMMER.....	Examiner and Recorder
EARL B. ERSKINE, M. D.,.....	Director Health Service
HAROLD W. BAILEY.....	Associate Dean Liberal Arts and Sciences
ARTHUR D. PICKETT.....	Assistant to the Dean Liberal Arts and Sciences
DAVID K. MAXFIELD.....	Librarian
RAY C. MARKS.....	Personnel Officer
JOHN O. JONES.....	Director Physical Education
GILBERT J. MILLER.....	Acting Assistant Superintendent of Buildings and Grounds
JEAN H. MAURY.....	Manager Public Information
PAUL C. GREENE.....	Director Student Counseling Bureau
RUTH M. FARNHAM.....	Veterans Benefits Administrator

REQUIREMENTS FOR ADMISSION

TO BE CONSIDERED for admission to the Chicago Undergraduate Division, prospective students should have all official credentials sent directly from each high school and college previously attended to the **Office of the Examiner and Recorder, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois**. A permit to enter is issued only on the basis of official detailed credentials, filed in advance, which meet the requirements for admission. Credentials accepted for admission become the property of the University. The date of an application is considered as that on which the last of all official credentials is received at the Office of the Examiner and Recorder. All veterans must submit a photostatic copy of Army Form 100, Navy and Coast Guard Form 553, Marine Corps Form 78 P.D., or the equivalent.

GENERAL REQUIREMENTS

Age — An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit on petition a student fifteen years of age who meets all other requirements for admission and who is to reside, while attending the University, with his parents or guardian or with someone selected by them.

High School Graduation — To be admitted by certificate, an applicant must be a graduate of an accredited secondary school.

HIGH SCHOOL SCHOLARSHIP

High School Graduates Who Rank in the Upper Half of Their Class — The Examiner and Recorder is authorized to admit, without adhering to the usual requirements as they pertain to majors and minors, an applicant whose rank in scholarship is in the upper fifty per cent of his graduating class. Such a student, however, must present those specific high school courses that are prerequisite to courses in the curriculum which he desires to follow in the University.

High School Graduates Who Rank in the Lowest Quarter of Their Class — A graduate of an accredited high school whose rank in scholarship is in the lowest quarter of his graduating class, and who meets the requirements as stated below, is admitted by certificate to probationary status and, in connection with his first registration in the University, is required to take such tests as may be prescribed by the Student Counseling Bureau. Such a student, immediately upon registration, is placed under the special supervision of the dean of the college in which he is enrolled. He may be required to carry a reduced program of work or a program especially arranged to meet his needs.

High School Graduates Who Rank in the Upper Three-Quarters of Their Class — A graduate of an accredited high school whose rank in scholarship is in the upper three-quarters of his graduating class, and who meets the requirements as stated below, is admitted to full freshman standing.

Graduates of Unaccredited Secondary Schools — Graduates of unaccredited secondary schools which offer four years of instruction are admitted by ex-

amination. The Examiner and Recorder, however, is authorized to admit a student who is a graduate of such an unaccredited secondary school and whose general scholarship rank is in the upper twenty-five per cent of his graduating class, subject to his passing at the University in advance of admission: (1) a test in English composition and rhetoric; and (2) such other examinations and tests in high school subjects as may be necessary to complete the University entrance requirements and the special requirements of the chosen curriculum.

High School Seniors—After the middle of their last semester, high school seniors should request that their high schools forward transcripts of work completed during the preceding semesters and supplementary transcripts showing courses in progress, expected final grade, and rank in graduating class to the Office of Examiner and Recorder, University of Illinois, Navy Pier, Chicago 11, Illinois.

SOURCES OF ACCEPTABLE CREDITS

The credits required for admission may be secured in the following ways:

1. By Certificate—A student presenting a certificate from an accredited secondary school is given entrance credit for all the subjects named therein for which the school is specifically accredited.

2. By Examination—Entrance examinations are given by the University several times each year in Urbana and in Chicago. For details and dates of examinations, address E. J. Smith, Office of Admissions and Records, University of Illinois, Urbana, Illinois.

3. By Transfer—A person who has attended another college or university of recognized standing will be considered for admission to the University of Illinois on presenting (1) a transcript of his college record, and (2) a certificate of honorable dismissal from the institution from which he comes, and (3) an official statement of his preparatory school work.

A person whose record at some other institution comes within either of the following classifications may enter the University only on approval of the dean of the college concerned and under conditions imposed by him: (1) A person on probation at or dropped from another institution for poor scholarship or for disciplinary reasons. (In the latter case he must also obtain approval of the University Senate Committee on Student Discipline.) (2) A person whose scholastic average is less than "C" (3.0) in terms of the grading system of the University of Illinois.

4. Service and Education in the Armed Forces—The University, under general provisions administered by the Committee on Admissions from Higher Institutions, will recognize for college credit certain training and experience in the Armed Forces. Credentials giving full details of such service and education should be sent to the Office of Examiner and Recorder, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.

DEFINITIONS

Unit—A unit course of study in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work.

Major—A major consists of three unit courses in one field.

Minor—A minor consists of two unit courses in one field.

REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Teacher-training Curricula.</p>	<p>English, 3 units Language, 2 units</p>	<p>Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine.</p> <p>Teacher-training Curricula.</p>	<p>English, 3 units Language, 2 units Algebra, 1 unit Geometry, 1 unit</p>	<p>Mathematics, 3 units, instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units Language, 2 units Algebra, 1½ units Geometry, 1 unit</p>	<p>Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p style="text-align: center;">COLLEGE OF COMMERCE</p> <p>All Fields (Accountancy, Banking and Finance, Commerce and Law, Economics).</p>	<p>English, 3 units Algebra, 1 unit Geometry, 1 unit</p>	<p>Advanced Algebra, ½ unit. Science, 2 units (including 1 unit with laboratory).</p>
<p style="text-align: center;">COLLEGE OF ENGINEERING</p> <p>All Curricula (Aeronautical, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).</p>	<p>English, 3 units Algebra, 1½ units Plane Geometry, 1 unit Solid Geometry, ½ unit</p>	<p>Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.</p>
<p>Curricula in Architecture and Architectural Engineering.</p>	<p>English, 3 units Algebra, 1½ units Geometry, 1 unit</p>	<p>Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economics and history).</p>

FIFTEEN UNITS REQUIRED

Fifteen units of acceptable secondary school work are required, including:

I. Two majors and one minor, selected from Groups 1-5 listed below. One of the majors must be English.

II. A total of at least nine units from the fields of English, foreign language, mathematics, science, and social studies, including preparation amounting to a major or minor sequence in at least three different fields.

III. All subjects required for the curriculum which the applicant desires to enter. (See table on page 12).

IV. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

ACCEPTABLE MAJORS AND MINORS

The required majors and minors defined above may be selected from the following five groups:

(1) **English** — In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

(2) **Foreign Language** — Three units in one language constitute a major. Two units in one language constitute a minor. The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, French, Spanish, Italian, Latin, Greek. Less than one unit in a language is not acceptable for admission.

(3) **Mathematics** — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. In Engineering and Fine and Applied Arts, where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence.

(4) **Science** — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit from the above subjects.

(5) **Social Studies** — Including history, civics, economics, commercial or economic geography, and sociology. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit of history.

Veterans' Registration Information

Veterans may qualify for admission to the Chicago Undergraduate Division under the regular entrance requirements listed on pages 10 to 13 or through satisfactory demonstration of ability to carry college work.

Honorable discharge papers and credentials showing special training courses completed while in the Armed Forces should accompany high school and college credentials at the time of application. These credentials should be sent to the Office of the Examiner and Recorder, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, for evaluation.

The veteran who plans to attend the University under the G.I. Bill or the Vocational Rehabilitation Act should:

1. Apply for a Certificate of Eligibility or a Letter of Authorization through the Veterans Administration, 366 W. Adams St., Chicago. A copy of discharge papers must accompany this application.

2. If he has previously used either a Certificate of Eligibility under the G.I. Bill, or a Letter of Authorization under the Vocational Rehabilitation Act, arrange with the Veterans Administration for a revised authorization.

3. Upon receiving a permit to enter the Chicago Undergraduate Division, submit the Certificate or Letter to Miss Ruth M. Farnham, Veterans Benefits Administrator, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois.

The presentation of a Certificate or Letter will enable veterans to register and to receive books and supplies without charge. With this Certificate or Letter the only fee charged in cash will be the General Deposit fee required of all students. Without this Certificate or Letter, veterans will be responsible for their own tuition, fees, and books. A rebate will be made when the Certificate or Letter is received.

The Certificate or Letter will also enable the veteran to receive monthly subsistence allowance from the Veterans Administration.

Students receiving educational benefits under the Vocational Rehabilitation Act should be certain that there is an authorization for their file at the University by the time they are to register.

Students transferring from Urbana or Galesburg. Students transferring to the Chicago Undergraduate Division from the Urbana campus or the Galesburg campus are responsible for requesting the transfer of their Certificates or Letters to Navy Pier; they are *not* transferred with academic records. To request a transfer of Certificates or Letters, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration Bldg. (W), Urbana, Illinois; or Mr. R. L. Graffouliere, Division of Special Services for War Veterans, Galesburg Undergraduate Division, Galesburg, Illinois.

Division of Special Services for War Veterans

The University of Illinois Division of Special Services for War Veterans has established an office at the Chicago Undergraduate Division for the purpose of assisting the veteran in returning to civilian life, but it does not register students as on the Urbana campus. Instead, a counselor in this office assists the veteran in making educational adjustments and guides him in his search for the curriculum which will best satisfy his needs.

The veteran whose previous training has not fitted him for admission to the curriculum of his choice may, subject to the admission requirements of the University, register as a Division of Special Services for War Veterans student, in one of the three colleges: Engineering, Commerce, or Liberal Arts and Sciences, taking such courses as will enable him to meet the requirements for admission to his chosen curriculum, and to transfer into it when he is adequately prepared to enter the field of his choice.

For veterans whose special needs cannot be satisfied by existing curricula, and who request a special program at the time of their first registration, the Counselor for the Division Special Services for War Veterans, provided this request is approved, will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran, which will be accepted by those administering the program. All such programs will be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at the Chicago Undergraduate Division, the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service may be transferred upon the basis of evaluation by the Examiner and Recorder.

The Office of the Veterans Counselor will help the veteran to secure those benefits offered him by the state and nation. For the convenience of the veteran student, the Illinois Veterans Commission and the Veterans Administration maintain service offices at the Chicago Undergraduate Division.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to the Division of Special Services for War Veterans, University of Illinois, Chicago Undergraduate Division, Chicago 11, Illinois.

FEES

TUITION FEE — All students who are residents of Illinois, except those holding scholarships, pay each semester a tuition fee of.....\$40.00

All students who are not residents of Illinois pay each semester a tuition fee of\$80.00

HOSPITAL AND MEDICAL SERVICE FEE — All students, except those taking not more than five hours of undergraduate work in a semester pay, each semester, as insurance for hospital and medical service, a fee of.....\$5.00

LABORATORY, LIBRARY, AND SUPPLY FEE — Students taking more than eight hours of instruction pay each semester a laboratory, library, and supply fee of\$8.00

(Students taking less than this amount of instruction pay \$4.00 each semester)

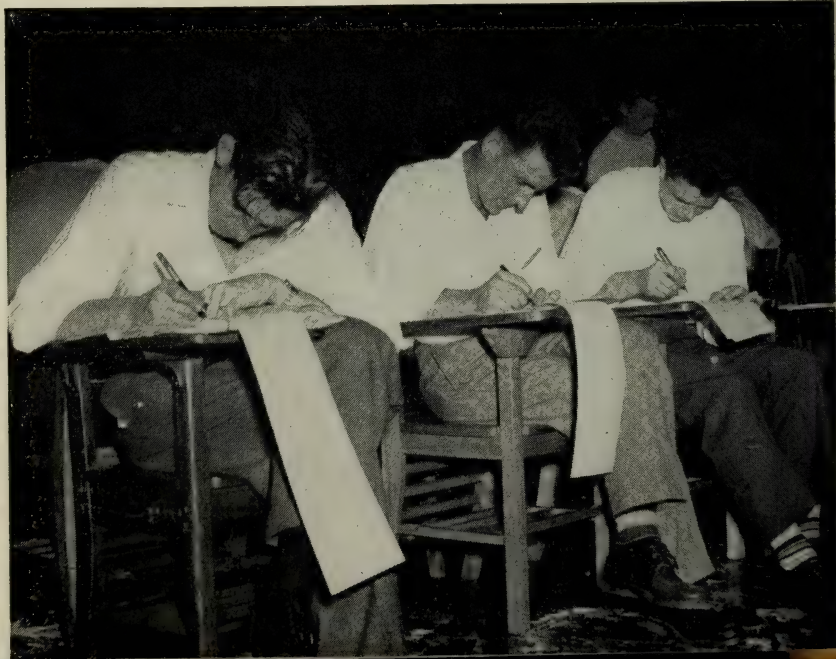
STUDENT ACTIVITIES SERVICE FEE — All students, except those registered for not more than five semester hours, pay each semester a student activities service fee of.....\$4.00

DEPOSITS — Each student must make a deposit of \$5 at the time of his first registration. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory and other equipment, etc. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately by additional deposit to bring the total up to \$5. Any balance in a deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD — Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment.

The above fees are payable in full when the student registers.

Registration



MISCELLANEOUS FEES

LATE REGISTRATION FEE—Former students who register after the regular registration days in either semester pay a late registration fee of.....5.00

CHANGE FEE—For every change slip issued later than noon of the second Monday following registration, the fee is.....1.00

LISTENER'S FEE—Persons not connected with the University who attend classes as listeners pay for each semester.....7.50

TRANSCRIPT FEE—Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is......50

SPECIAL EXAMINATION FEE—For any special examination to remove a failure the fee is.....5.00

SERVICE CHARGE FOR DEFERRED FEES—A service charge of ten per cent of the amount of fees deferred, but not to exceed \$3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded *except* that a minimum service charge of \$1 is retained by the University in all cases. The general deposit of \$5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.



Harold E. Temmer
Examiner and Recorder

FEES FOR EIGHT WEEKS OF INSTRUCTION IN THE SUMMER

Students registering for eight weeks in the summer term pay fees as listed above except that the tuition for residents of Illinois is \$20, and for non-residents, \$40; laboratory, library, and supply fee, \$4; hospital and medical service fee, \$2.50; student activities service fee, \$2.00.

Students registering in courses totaling four semester hours or less pay \$3 a credit hour if residents of Illinois, or \$6 a credit hour if non-residents, instead of the usual fee for eight weeks of instruction.

REFUNDS OF FEES

In case a student withdraws from a course or from the University¹ during the first ten days of instruction, the total amount of his fees for the work dropped will be refunded. After ten days and before the middle of the semester, a rebate of one-half the fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

¹ Students leaving the University should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student's being dropped at the end of the semester.

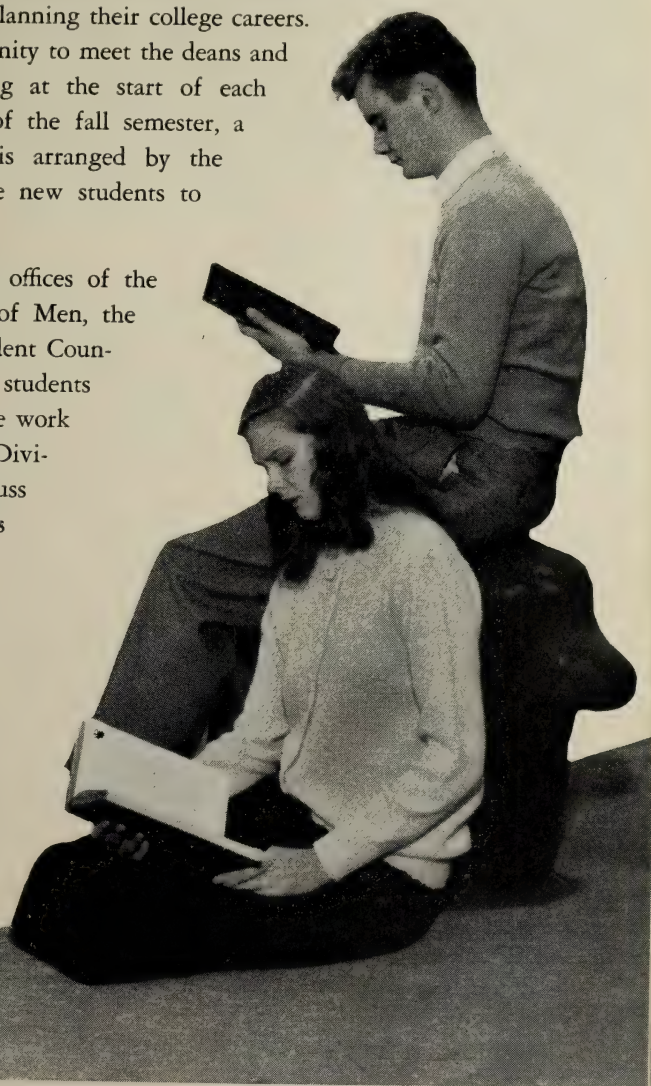


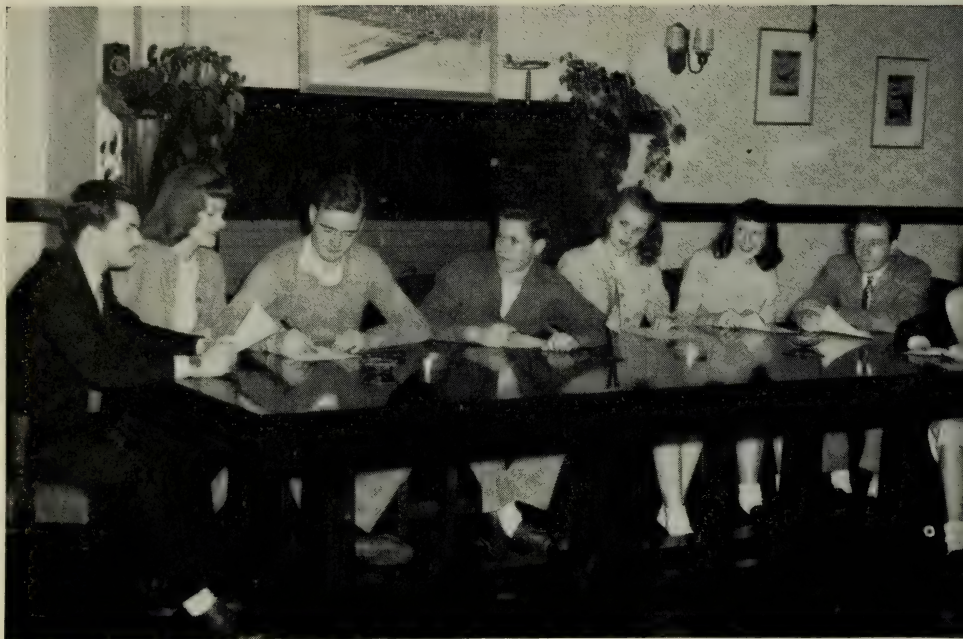
Student Welfare

THE UNIVERSITY'S INTEREST in the individual student extends beyond the classroom to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling, instruction in healthful living, and extracurricular activities, both social and cultural.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Counseling Bureau available to prospective students seeking help in planning their college careers. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester. At the beginning of the fall semester, a "Freshman Week" program is arranged by the Student Congress to introduce new students to extracurricular activities.

Counseling facilities of the offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Student Counseling Bureau are available to students at all times during their college work at the Chicago Undergraduate Division. Students are urged to discuss specific educational problems with their instructors. Members of the instructional staff hold weekly office hours for conferences with individual students.



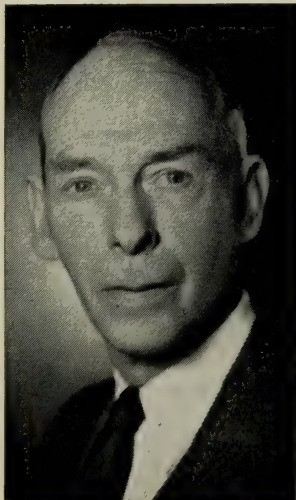


Serious business for the Student Congress

Dean of Students

THE WELFARE OF THE STUDENT outside the classroom is the responsibility of the Dean of Students. He is charged with the direction, supervision, and

Edwin A. Wolleson,
Dean of Students



coordination of the University agencies which are active in the guidance of students in extracurricular activities. The Dean of Students is available for individual consultation with students.

His principal assistants are the Dean of Men, the Dean of Women, the Director of University Health Service, and the Director of Physical Education.

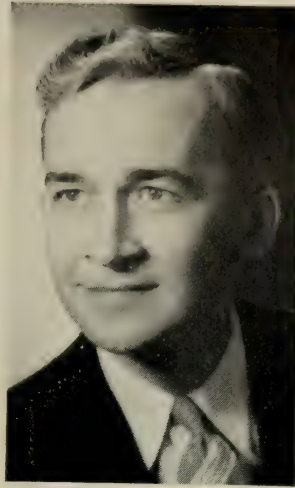
As the University officer primarily interested in student affairs, the Dean of Students serves as secretary to the Faculty Committee on Student Affairs. Student activities of an extracurricular nature are supervised by the Faculty Committee on Student Affairs, composed of the Dean of Students, the Dean of Men, the Dean of Women, and appointed faculty members from each of the three colleges.

Dean of Men

THE OFFICE OF THE DEAN OF MEN is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily.

As the financial advisor for student organizations, the Dean of Men takes an active part in student extracurricular affairs. He also serves as the advisor to Phi Eta Sigma, national scholastic honorary for first-year men students.

The Student Employment Division which assists needy students with contacts for part-time employment and the Hospital and Medical Service plan are under the supervision of the Dean of Men. Attendance records for both veteran and nonveteran students are maintained by the Office of the Dean of Men.



Warren O. Brown,
Dean of Men

Dean of Women

THE OFFICE OF THE DEAN OF WOMEN is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the advisor to women's organizations at the Chicago Undergraduate Division and as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women.

All student social events are coordinated and unified through her office in her capacity as chairman of the Administrative Council Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.



Ruth E. Leitch,
Dean of Women

SCHOLARSHIPS AND LOAN FUNDS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition fees include: County Scholarships; General Assembly Scholarships; University Scholarships; and Military Scholarships. Particular attention is called to the William J. Cook Fund Scholarship. Applications should be initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

Loan funds are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualifications which must be met by applicants.

Detailed information regarding scholarships and loan funds may be obtained from the Office of the Dean of Students. For information as to Military Scholarships, see the Office of the Examiner and Recorder.

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Men maintains a list of part-time jobs available, both in University offices and in industry and business in the Chicago area. Applications for part-time positions should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule so that consecutive hours are free each day. Students in curricula for which laboratory periods occupy most day hours between eight in the morning and five in the afternoon may find food-service work at meal hours the most time-conserving type of employment. Employment for the first-year student should be a matter of necessity rather than choice.

HOSPITAL AND MEDICAL SERVICE

A HOSPITAL AND MEDICAL SERVICE FEE OF FIVE DOLLARS is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital or to home, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room medicine, drugs, and dressings. (X-ray is excluded.) The Hospital and Medical Service plan is under the supervision of the Dean of Men.

Note: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee, may petition through the Office of the Dean of Men *during the first ten days of instruction*, for a refund of this fee.

Health Service

THE UNIVERSITY maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff at the University Health Service, are required of all students prior to the time of their first registration. Chest X-rays, in cooperation with the State Department of Public Health, are required as part of the physical examination. Immunizing inoculations for small pox, tetanus, diphtheria, influenza, and typhoid fever are available to students free of charge.

The staff of five physicians instruct classes in hygiene, and sanitation as follows:

Hygiene 102. Essentials of Hygiene and Sanitation. — Required of all undergraduate women during their first year of residence. I, II. (2 hours).

Hygiene 105. Elementary Hygiene and Sanitation. — Required of all undergraduate men during their first year of residence. I, II. (2 hours).

As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations. Members of the staff are available for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5:30 p.m. daily and mornings on Saturdays and during vacation periods.

Next — for flu shots





Interpreting test results

Student Counseling Bureau

SERVICES OF THE STUDENT COUNSELING BUREAU are available to assist students in successfully meeting University standards of attainment. The Bureau provides specialized services by trained counselors for the purpose of helping all students and prospective students to understand, choose, and best use those facilities of the University which will meet their individual needs.

Early and continued use of Bureau services will aid in arriving at a thorough understanding of one's abilities, interests, educational background, and personal situation as these relate to making plans and carrying through activities leading to success both in and out of school.

Freshman Guidance Examinations administered by the Bureau are taken by all first year students prior to registration in the University. Scores on these tests are important indices to educational and vocational aptitudes, interests and abilities. A counselor will gladly assist in evaluating these, and where desirable other, special evidences of assets and needs.

Group-counseling and practice on study and reading skills at the college level is available through participation in non-credit "classes" offered by the Bureau. This program includes laboratory practice in improving study habits, note-taking, preparation for examinations, facility in concentrating and remembering, and increasing speed and understanding in reading. Students may register for this program at the Student Counseling Bureau.

Students wishing to talk over any educational, vocational or other personal problem may make an appointment at the Reception Office of the Student Counseling Bureau. This is located at Room 303 on the third floor south, near the east end of the Pier.

University Library

THE LIBRARY OF THE CHICAGO UNDERGRADUATE DIVISION is outstanding among the newer college libraries of the nation. Although only two years old, it contains nearly 25,000 volumes, all of which have been carefully chosen with the Institution's undergraduate curricula in mind, as well as the general and recreational interests of students and faculty. Orders for new books are being placed constantly, so that it is expected that the Library will contain 50,000 selected volumes within the next few years.

While no attempt will ever be made to duplicate scholarly research facilities already available in the city, strong emphasis is placed on general reference and readers' advisory service, with close liaison maintained with the teaching program and student activities. An exceptional collection of general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks and directories (2,000 volumes) has been assembled. A complete dictionary catalog is provided, and 20 periodical indexing services are available. The subscription list includes nearly 500 magazines and journals. Twenty-year back files of 138 particularly useful periodicals have already been bound for permanent reference use and are available on open shelves. An extensive vertical-file pamphlet collection and excellent microfilm reading facilities are also provided.

The Library is located on the second floor at the East end of the Pier. Its well-lighted, open-shelf reading room overlooking Lake Michigan offers study facilities for 800 students at 100 large tables. The staff of nineteen includes eight trained librarians with academic rank and eleven clerks. Two circulation counters and a special service station near the street car line provide circulation and reserve book facilities.

Library hours are 8:30 a.m. to 5 p.m., Monday through Friday, and 9 a.m. to 12 noon on Saturday. Longer hours of service are arranged for the Reserve Book Station.

Students take advantage of reference service





A mid-afternoon snack



Lunch in the faculty room

Food Service

THE UNIVERSITY OPERATES non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the Pier. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the Pier, adjacent to the reception lounge. In addition, a dining room at the east end of the Pier offers cafeteria-style service to members of the faculty and staff.



Down the
cafeteria

Stop for supplies
at Bookstore



University Bookstore

THE UNIVERSITY BOOKSTORE is operated on a cooperative basis to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

Students and faculty members may participate in a "share-the-profit" plan at the end of each year if the store realizes a profit for the operating year.

The Bookstore is located at Room 87. It is open daily Monday through Friday from 8:30 a.m. to 5 p.m. During the registration period, the Bookstore is open from 8 a.m. to 6 p.m.

Window shopping at the Bookstore





John O. Jones,
Director of Athletics

Athletics

INTERCOLLEGIATE COMPETITION in eight sports—basketball, cross-country, wrestling, gymnastics, swimming, baseball, and tennis—is on the varsity program for the Chicago Undergraduate Division. In accordance with a special ruling, freshmen are allowed to participate in varsity sports without this participation affecting the three-year eligibility rule. All students, however, must meet Big Nine conference eligibility standards.

A feature of the athletic program at the Navy Pier branch is the extensive intramural program in which students, with the exception of those on varsity squads, can elect to take part in boxing, wrestling, badminton, table-tennis, volleyball, basketball, swimming, gymnastics, handball, weight-lifting, tennis, track, and softball. The intramural program, as well as the intercollegiate, is under the supervision of a sub-committee of student and faculty representatives. Both programs are financed through funds from student activities fees and from appropriations from the downstate campus.

A staff of 14 coaches directs the Navy Pier athletic activities. Letter awards are made to varsity athletes who meet the participation requirements, to sophomore managers, and sophomore cheerleaders.

In addition to intercollegiate and intramural athletics, students in the physical education classes are offered instruction in volleyball, badminton, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, fly and bait casting, and a basic physical fitness program.

Women are offered elementary rhythms, intermediate and advanced rhythms, individual gymnastics, team sports, individual and dual sports, tumbling, apparatus stunts, fundamentals of motor fitness, and instruction in the square dance.

The Chicago Undergraduate Division has the use of the longest gymnasium in the State of Illinois. The huge structure, built by the U. S. Navy as a drill hall during the recent war, is 100 feet in width and is 500 feet long. The gymnasium, with a floor large enough to accommodate eight full-size basketball courts, has shower facilities and basket-type lockers available for 4,000 students.



Scramble for baskets

Physical Education

WOMEN STUDENTS entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men students entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempted.

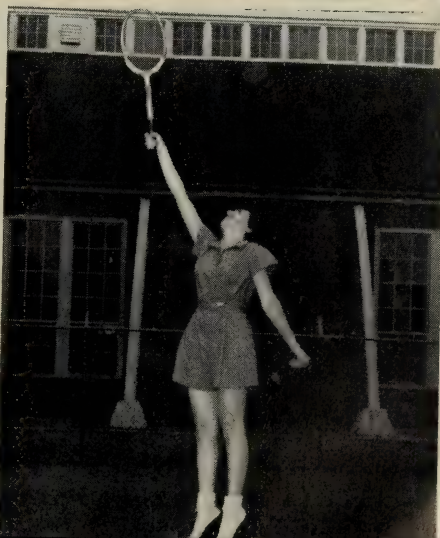
Physical education may be deferred only by written request through the Physical Education Department which will make recommendation to the dean of the student's college.

Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce.

Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses such as adapted sports and prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week (for 1 hour) or two times a week (for 1½ hours). All general courses in physical education carry one hour of credit.

Archery
Gymnastics
Tennis

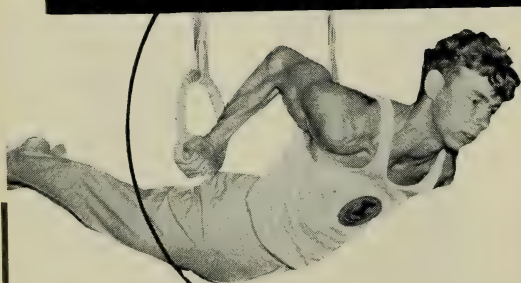




Student extracurricular activities are recognized as an important part of the college program at the Chicago Undergraduate Division. Opportunities for practical experience in journalism, radio, and dramatics are offered through student organizations. Social and cultural activities are sponsored by various student groups.

The Student Congress is the self-governing student organization, comprised of class officers and representatives elected by the students at the Chicago Undergraduate Division.

EXTRACURRICULAR ACTIVITIES



The "Pier Illini" is the weekly newspaper written and edited by students at the Chicago Undergraduate Division. The student radio group, NAPI, affords opportunities for acting, directing and engineering experience for students planning a career in radio. The Theater Guild is the student dramatic group.



The University dance committee, composed entirely of students, plans, organizes and supervises all-University dances held for the student body. Special dances and social events are sponsored by other student organizations. Student groups, such as the Spanish club, engineering club, and classics club, supplement classwork for students in these curricula.



Courses Required of All Students

THE FOLLOWING COURSE REQUIREMENTS must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be begun in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Hygiene—One semester. Credit may be obtained by a proficiency examination. (Veteran students who have completed basic training in the Army, Navy, Marine Corps, or Coast Guard receive credit for hygiene). Transfer students having sophomore standing are exempt from hygiene.

2. Physical Education—Four semesters. Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. (Veteran students who have completed basic training while in the service are exempted.)

Physical education may be deferred only by written request through the Physical Education Department which will make recommendation to the dean of the student's college.

3. Rhetoric—Two semesters (Rhetoric 101 and 102). All students entering the University as freshmen direct from secondary school are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A-5 grade points; B-4; C-3; D-2; E(failure)-1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus if you earn 3 hours of A, 6 of B, 3 of C, and 2 of D, the computation of your grade point average is as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	52
	<hr/>		<hr/>	— = 3.71
	14		52	14

Your grade point average is 3.71.

College of Commerce and Business Administration



Robert P. Hackett, Associate Dean,
Commerce and Business Administration

THROUGH KNOWLEDGE of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for underclassmen. Though the factual contents of many of the courses are directly useful in specific vocations—accounting, banking, selling, teaching—students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

Many of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must (1) meet the general University requirements with respect to registration, residence, scholarship, and fees; (2) have a minimum of 130 semester hours of credit, including credit for the required work in rhetoric, hygiene, physical education, and military science.

and including a minimum of 60 hours in courses given in the College of Commerce; and (3) complete the requirements of one of the fields of concentration (accountancy, banking and finance, commerce and law, commercial teaching, economics, industrial administration, management, marketing, or public affairs) with an average grade of not less than "C" in all courses counted toward graduation, whether taken at the University of Illinois or elsewhere.

PROGRAM FOR THE LOWER DIVISION¹

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 101 or 102—Principles of Accounting	3 or 2	Accy. 105—Accounting Procedure	3
Econ. 101—Economic History of U.S.	3	Econ. 100—Introduction to Business	3
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Science and/or College Algebra ²	5-8	Science and/or College Algebra ²	3-5
Physical Education	1	Hygiene 102 or 105	2
Electives	0-3	Physical Education	1
<i>Total</i>	15-18	<i>Total</i>	15-17

Second Year

Accy. 106—Cost Accounting	3	Accy. 108—Intermediate Accounting	3
Econ. 102—Principles of Economics	3	Econ. 103—Principles of Economics	3
Language or Literature ³	4	Language or Literature ³	4
Two of the following three:		One of the following:	
Econ. 170—Elementary Statistics	3	Econ. 170—Elementary Statistics	3
Rhet. 151—Business Letter Writing	2	Rhet. 151—Business Letter Writing	2
Speech 101—Effective Speaking	3	Speech 101—Effective Speaking	3
Physical Education	1	Physical Education	1
		Electives	2-4
<i>Total</i>	16-17	<i>Total</i>	15-18

¹ Students interested in commercial teaching should consult the Dean of the College.

² Mathematics and Science — All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.

³ Language — Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college.



Illustrations in
economic geography

College of Engineering

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. While each student pursues a curriculum of his own choice according to the field of his particular interest, all students must take certain courses. Basic courses in mathematics, chemistry, physics, rhetoric, and general engineering drawing are required in the first two years.

At the Chicago Undergraduate Division the first two years of courses in the following fields are offered: aeronautical engineering; ceramic engineering; civil engineering; electrical engineering; engineering physics; general engineering; mechanical engineering; metallurgical engineering; and mining engineering. Those few advanced courses which are not available here are properly noted.

Instruction in all courses is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois in his third year.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula. Each curriculum requires a minimum of 136 semester hours of credit, not counting the required work in military science and physical education. Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years.



Randolph P. Hoelscher
Associate Dean, Engineering Sciences

Electives and Options

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences and in the College of Commerce and the College of Engineering. **Technical electives** include practically all courses in the College of Engineering not required in the student's curriculum except all elementary work in drawing.

In all curricula, no less than one year of college work in modern language (English, French, German, or Spanish) may be substituted for the approved elective to the extent of the hours specified in the particular curriculum.

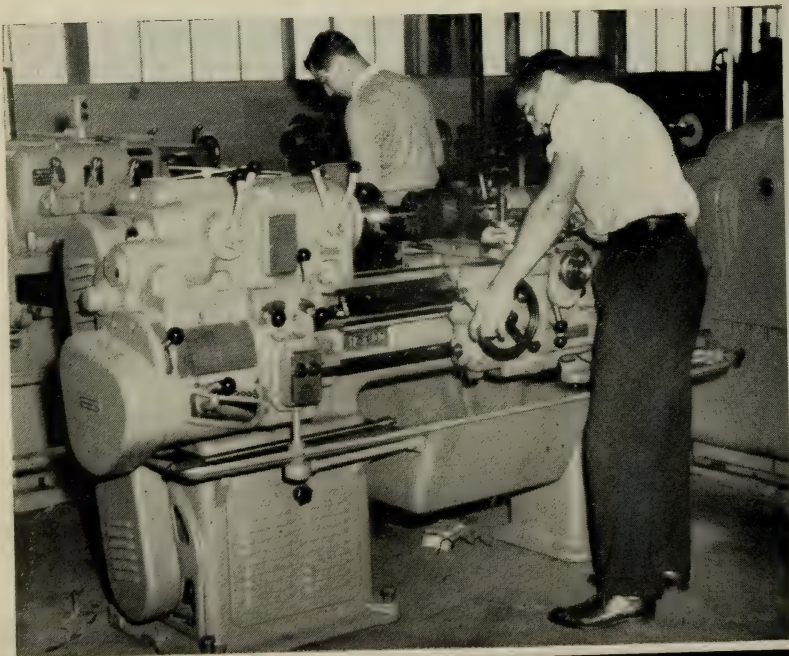
Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by **curriculum options**, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

Common Program for Freshman

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on the following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 102 or 103—Inorganic Chemistry	3 or 4	Chem. 104—Metallic Elements	4
G.E.D. 101 or 104—Elements of Drawing	4	G.E.D. 102—Descriptive Geometry ..	4
Math. 112—College Algebra	3	Math. 122—Analytic Geometry	4
Math. 114 or 115—Trigonometry	2	Rhet. 102—Rhetoric and Composition	3
Rhet. 101—Rhetoric and Composition	3	Hygiene 102 or 105	2
Physical Education	1	Physical Education	1
<i>Total</i>	16-17	<i>Total</i>	18



Mastering
shop technics

Curriculum in Aeronautical Engineering

First Year

Common Program for Freshmen (page 36).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 103—Aircraft Drafting and Lofting	3	Math. 142—Integral Calculus	3
Math. 132—Differential Calculus	5	Physics 104—General Physics	5
M.E. 182—Manufacturing Processes	3	Speech 101—Principles of Effective Speaking or Non-Technical Elective	3
Physics 103—General Physics	5	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Physical Education	1	Physical Education	1
<i>Total</i>	17	<i>Total</i>	17

Curriculum in Ceramic Engineering

First Year¹

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Cer. E. 101—Introduction to Ceramic Engineering ²	3	Cer. E. 102—Ceramic Processes and Equipment ²	3
Chem. 123—Quantitative Analysis for Engineers ³	5	Geol. 130—General Mineralogy ²	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	19	Physical Education	1
		<i>Total</i>	17

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences.

See pages 45 and 47

Curriculum in Civil Engineering

First Year⁴

Common Program for Freshmen (page 36)

¹Common Program for Freshmen (page 36), except that Chem. 105 and Math. 117-127 are substituted for Chem. 104 and Math. 112, 114, and 122.

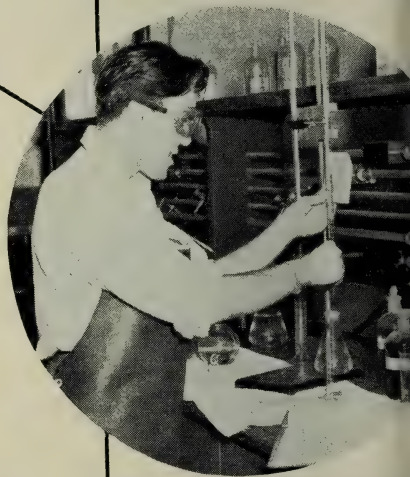
²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

³Not offered at the Chicago Undergraduate Division; substitute Chem. 122—Elementary Quantitative Analysis.

⁴C. E. 101 and 102 are required courses which will be taught only at the summer surveying camp following the freshman year.



CLASS ROOM

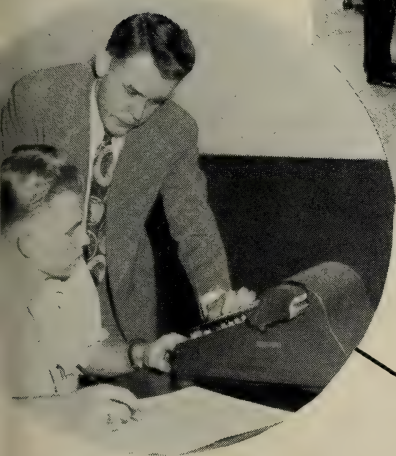
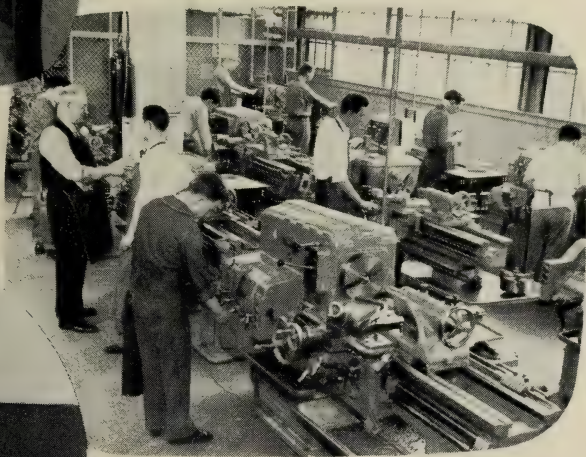
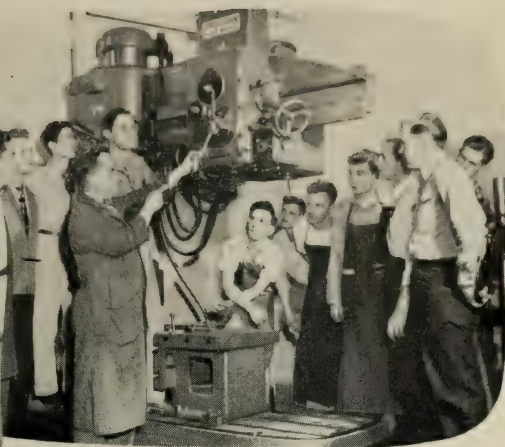


AND

LABORATORY



Students at the Chicago Undergraduate Division have the use of classrooms, 33 laboratories and 6 large lecture halls. Modern, fully-equipped labora-



are available in chemistry
ical sciences, physics,
cs, and machine shop.
architecture
g rooms and eight
ering drawing laboratories
provided.

Curriculum in Civil Engineering (Continued)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 103—Route Surveying ¹	3	C.E. 135—Plain Concrete	2
C.E. 160—Bridge and Bldg. Construc. 3	3	C.E. 136—Construction Materials	2
Math. 132—Differential Calculus	5	Geol. 150—Engineering Geology ²	3
Phys. 103—General Physics	5	Math. 142—Integral Calculus	3
Physical Education	1	Phys. 104—General Physics	5
		T.A.M. 150—Analytical Mechanics (Statics)	2
		Physical Education	1
<i>Total</i>	17	<i>Total</i>	18

Curriculum in Electrical Engineering

First Year

Common Program for Freshmen (page 36)

Second Year³

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
E.E. 120—Illuminating Engineering and Secondary Power Distribution .3	3	E.E. 126—Introduction to Electro- dynamics	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 184—Metal Processing; or Speech 101—Principles of Effective Speaking ³	3	Speech 101—Principles of Effective Speaking; or M.E. 184—Metal Processing ³	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
		Physical Education	1
<i>Total</i>	17	<i>Total</i>	19

Curriculum in Engineering Physics

The purpose of this curriculum is to prepare students for investigation in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

¹Offered during the fall semester only.

²Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geol. 150 and approved non-technical electives, 5 hours.

³Students intending to select the option in Illumination take Speech 101 the first semester and Physiology 106, if offered, the second semester.

Curriculum in Engineering Physics

(Continued)

First Year

Common Program for freshmen (page 36) except that substitution of Chem. 106 for Chem. 104 is advised.

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective.....4		German or Approved Elective.....4	
Math. 132—Differential Calculus.....5		Math. 142—Integral Calculus.....3	
Phys. 103—General Physics.....5		Phys. 104—General Physics.....5	
Physical Education1		T.A.M. 150—Analytical Mech. (Statics) 2	
Approved Elective3		Physical Education1	
		Approved Elective3	
Total.....18		Total.....18	

Curriculum in General Engineering

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporation finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations.

First Year

Common Program for Freshmen (page 36).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 108—Principles of Economics..3		Geol. 150—Geology for Engineers....3	
Math. 132—Differential Calculus.....5		Math. 142.—Integral Calculus.....3	
M.E. 183—Materials Casting; or C.E.		Phys. 104—General Physics.....5	
115—General Surveying ²3		T.A.M. 156—Analytical Mechanics	
Phys. 103—General Physics.....5		(Statics and Dynamics).....5	
Physical Education1		Physical Education1	
Total.....17		Total.....17	

¹ The election of Chem. 110, 124, and 234 is advised. Students wishing to emphasize geophysics should elect most or all of the technical options in geology. Five hours must be approved electives.

² Not given at the Chicago Undergraduate Division, must be taken at Urbana.

Curriculum in Mechanical Engineering

First Year

Common Program for Freshmen (page 36).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 171—Mechanism	2	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 183—Materials Casting; or M.E. 184—Metal Processing	3	M.E. 184—Metal Processing; or M.E. 183—Materials Casting	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	Physical Education	1
Total	16	Total	17

Curriculum in Metallurgical Engineering

First Year

Common Program for Freshmen (page 36) except that Chem. 105 and G.E.D. 106 are substituted for Chem. 104 and G.E.D. 101.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 123—Quantitative Analysis for Engineers ¹	5	Math. 142—Integral Calculus	3
Math. 132—Differential Calculus	5	Physics 104—General Physics	5
Physics 103—General Physics	5	Met. E. 150—Introduction to Metallurgy ²	3
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
Approved Elective ³	3	Physical Education	1
Total	19	Approved Elective ³	3
		Total	17

Curriculum in Mining Engineering

First Year

Common Program for Freshmen (page 36).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 150—Geology for Engineers	3	Geol. 130—General Mineralogy ²	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
Min. E. 151—Elements of Mining ²	4	Min. E. 152—Fuels ²	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
Total	18	Physical Education	1
		Total	17

¹Not offered at the Chicago Undergraduate Division; substitute Chem. 122—Elementary Qualitative Analysis.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

³Eight hours of approved foreign language (French, Spanish, German, or Russian) may be substituted for 8 hours of approved electives.

ARCHITECTURE

(Offered under the College of Engineering)

THE BUSINESS OF the architect is to conceive, design, and superintend the construction of buildings of any character, from the smallest to the largest, including homes, churches, schools, hospitals, hotels, factories, office buildings, etc. While architecture is in a sense a Fine Art, the architect must understand not only the principles of design but also the procedure of construction.

Since the practice of architecture is so diversified that no one can encompass it in all its details, some degree of specialization is necessary. In order to train future architects, two options are offered: general architecture and architectural engineering. A general understanding of the profession of architecture from the standpoint of design, safety, and economy, and of the architect's duties, is emphasized in both options. The first year of work is identical in both; a field of specialization is selected in the second year.

The general architecture option places the major emphasis on architectural design and includes a substantial program in architectural engineering. While the aesthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The architectural engineering option offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes two years of architectural design, freehand drawing, and the history of architecture, the student primarily interested in architectural engineering can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business engineering, and language and literature. It also provides sufficient training for independent practice as an architectural engineer.

Students at the Chicago Undergraduate Division are eligible to compete for several prizes and scholarships offered annually through the Beaux-Arts Institute of Design. The Beaux-Arts Institute of Design sponsors nation-wide competitions among qualified students of certain American schools, including the University of Illinois.

Electives

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131, Mathematics 111, 112, 114, 115, 122, Botany 100, 101, Geography 101, Geology 101, Zoology 101.

Curriculum in Architecture

This curriculum which requires 142 semester hours for graduation, emphasizes architectural design in training students for service as draftsmen and designers in architectural organizations and for independent practice.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 131—Architectural Design	3	Arch. 132—Architectural Design	3
Art 181—Freehand Drawing	2	Art 182—Freehand Drawing	2
G.E.D. 107—Architectural Projections	2	G.E.D. 108—Architectural Projections	2
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Math. 112—College Algebra	3	Math. 122—Analytic Geometry	4
Math. 114—Trigonometry	2	Hygiene 102 or 105	2
Physical Education	1	Physical Education	1
<i>Total</i>	16	<i>Total</i>	17

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 113—History of Architecture . .	2	Arch. 114—History of Architecture . .	2
Arch. 133—Architectural Design . . .	3	Arch. 134—Architectural Design . . .	3
Arch. 143—Technology of Materials .	3	Arch. 144—Technology of Materials .	3
Art 183—Freehand Drawing	2	Art 184—Freehand Drawing	2
Phys. 101—General Physics	5	Phys. 102—General Physics	5
T.A.M. 171—Elements of Mechanics .	3	T.A.M. 172—Strength of Materials .	3
Physical Education	1	Physical Education	1
<i>Total</i>	19	<i>Total</i>	19

Curriculum in Architectural Engineering

First Year

(Identical with curriculum in Architecture)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 113—History of Architecture . .	2	Arch. 114—History of Architecture . .	2
Arch. 133—Architectural Design . . .	3	Arch. 134—Architectural Design . . .	3
Art 183—Freehand Drawing	2	Art 184—Freehand Drawing	2
Math. 132—Differential Calculus . . .	5	Math. 142—Integral Calculus	3
Phys. 101—General Physics	5	Phys. 102—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
		Physical Education	1
<i>Total</i>	18	<i>Total</i>	18

College of Liberal Arts and Sciences

THE COLLEGE OF LIBERAL ARTS AND SCIENCES at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years or commonly to change his vocational objective without additional time. Such a change after the beginning of the junior year usually cannot be made without loss of time.

It is assumed that upon completion of the two-years' work at the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: General, Chemistry, Chemical Engineering, Pre-Medicine, Pre-Dentistry, Teacher-Training, Pre-Law, Pre-Veterinary Medicine; and Pre-Journalism. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

GENERAL CURRICULUM

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in a field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of advisers, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 46 and 47 in their first four semesters in the University.



Harold W. Bailey, Associate Dean
Liberal Arts and Sciences

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Hygiene—Hygiene 102 or 105.

Physical Education—4 semesters.

Rhetoric—Rhet. 101 and 102 (If C or D in Rhet. 102, student must pass qualifying examination or take Rhet. 200).

Foreign Language—Equivalent of two years in same language.

U. S. History—Placement test at University. If student fails test, he must take the course.

Mathematics—Placement test at University. If student fails test, he must take a special course.

Biological Sciences — 8 hours.

Physical Sciences — 8 hours.

Humanities — 8 hours.

Social Sciences — 8 hours.

Major—20 approved hours in one department.

Minor(s)—20 approved hours in one or two departments.

Advanced hours—30 hours of credit in courses not open to freshmen and sophomores.

Residence—Either first 88 hours uninterrupted, or last 30 hours uninterrupted at the University of Illinois.

Average—3.0 (C) minimum average.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of D.

REQUIRED SUBJECTS

A. Foreign Language. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed.

1. Foreign Language.—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. (Students planning to enter a Graduate College are advised to obtain a reading knowledge of both French and German.)

B. Group Requirements — To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

I. For students who entered college prior to September 1, 1946:

1. *Liberal Arts.*—A total of 15 hours chosen from at least three of the following subjects, including one course in English or foreign literature or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work, or its equivalent), economics, history, philosophy, political science, and sociology.

B. Group Requirements (Continued) —

2. *Sciences*.—A total of 15 hours chosen from at least three of the following subjects, including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.

II. For students who entered college after September 1, 1946:

1. *Basic Knowledge*.—A total of three hours in History of the United States and six hours in mathematics. These requirements may be satisfied by courses taken in high school, if the scores on placement examinations are sufficiently high.
2. *General Education*.—An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) Humanities; (b) Biological Science; (c) Physical Science; (d) Social Science.

ELECTIVES

1. *Liberal Arts and Sciences*.—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*.—Electives totaling as much as (but not more than) 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity to the following list approved by the faculty:

Accountancy.—A total of 6 hours (not including more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics.—A total of 6 hours.

Architecture.—A total of 15 hours.

Art.—A total of 15 hours.

Business Law.—A total of 6 hours.

Business Organization and Operation.—A total of 6 hours. Secretarial Training 201-202 (Typewriting) and 211-212 (Shorthand) may not be offered for credit.

Economics.—All courses.

Education.—A total of 20 hours.

Engineering.—A total of 10 hours in the College of Engineering.

Forestry.—A total of 3 hours.

Home Economics.—All courses.

Horticulture.—A total of 6 hours.

Hygiene.—Hygiene 102 or 105 (2 hours).

Journalism.—A total of 10 hours.

Landscape Architecture.—A total of 7 hours.

Law.—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken with the advice of the Dean of the College of Law, and provided further that if any student desires to take more than 6 hours of law work, he must also register in the College of Law.

Library Science.—A total of 10 hours.

Military Science.—A total of 8 hours in advanced courses.

Music.—A total of 15 hours approved by the Director of the School.

Physics.—All courses.

Chemistry and Chemical Engineering

THE MINIMUM LANGUAGE requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 117, and who do not have two units of high school credit in French or German. Both curricula lead to the Degree of Bachelor of Science in Chemical Engineering, but those who follow the five-year curriculum will find it possible, by the proper choice of electives, to obtain a Bachelor of Arts or Bachelor of Science degree at the end of four years.

Students in these curricula should note that registration in chemical engineering courses other than those open to freshmen and a few of those open to sophomores is restricted to students who have a grade-point average of 3.5.

CURRICULUM IN CHEMISTRY

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—Inorganic Chemistry and Qualitative Analysis ¹	5	Chem. 108—Inorganic Chemistry and Qualitative Analysis	5
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
German or French	4	German or French	4
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	—	Hygiene 102 or 105	2
		Physical Education	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 122—Quantitative Analysis ...	5	Chem. 234—Organic Chemistry ⁴ ...	5
Math. 132—Differential Calculus ...	5	Math. 142—Integral Calculus ...	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	—	Physical Education	—
Electives ³	0-3	Electives ³	2-5
<i>Total</i>	15-18	<i>Total</i>	15-18

¹All students with entrance credit in chemistry are required to take a proficiency examination before registering for Chem. 107. Those who do not show the necessary proficiency will be placed in Chem. 101 or 102, after which they will take Chem. 106 and 110. For students without entrance credit in chemistry, the required sequence is Chem. 101, 106, and 110.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Suggested courses for electives are: Zool. 101, 107, 132; Bot. 100, 101; Engl. 121, 122; Geol. 130, 150; Hist. 151, 152; Bact. 104, 105; German or French. Of the total electives for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute courses in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

⁴Not given at Chicago Undergraduate Division.

FOUR-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—Inorganic Chemistry and Qualitative Analysis ¹	5	Chem. 108—Inorganic Chemistry and Qualitative Analysis	5
Math. 117—Freshman Mathematics ² ..	5	Math. 127—Freshman Mathematics ² ..	4
German, French, or Russian	4	German, French, or Russian	4
Rhet. 101—Rhetoric and Composition ..	3	Rhet. 102—Rhetoric and Composition ..	3
Physical Education		Hygiene 102 or 105	2
		Physical Education	
<i>Total</i>	17	<i>Total</i>	18

Second Year

Chem. 122—Quantitative Analysis ...	5	Chem. 240—Physical Chemistry ³ ...	3
Math. 132—Differential Calculus ...	5	Chem. 241—Physical Chemistry Lab. ³ ..	1
Phys. 103—General Physics	5	Math. 142—Integral Calculus	3
G.E.D. 106—Elements of Drawing ...	3	Phys. 104—General Physics	5
Physical Education		Ch.E. 261—Stoichiometry ³	3
		T.A.M. 150—Analyt. Mechanics (Statics)	2
		Physical Education	
<i>Total</i>	18	<i>Total</i>	17

OPTIONAL FIVE-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 or 102—General Chemistry ⁴	5 or 3	Chem. 106—Inorganic Chemistry ...	5
Math. 117—Freshman Mathematics ² ..	5	Math. 127—Freshman Mathematics ² ..	4
Rhet. 101—Rhetoric and Composition ..	3	German, French, or Russian	4
German, French, or Russian	4	Rhetoric 102—Rhetoric and Comp. ...	3
Physical Education		Hygiene 102 or 105	2
		Physical Education	
<i>Total</i>	15-17	<i>Total</i>	18

Second Year

Chem. 110—Qualitative Analysis ...	5	Chem. 122—Quantitative Analysis ...	5
Math. 132—Differential Calculus ...	5	Math. 142—Integral Calculus	3
German, French, or Russian	4	Phys. 104—General Physics	5
Phys. 103—General Physics	5	German, French, or Russian	4
Physical Education		Physical Education	
<i>Total</i>	19	<i>Total</i>	17

¹Students who do not qualify for Chem. 107 automatically go into the five-year curriculum.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 or 115), 122, 132, and 142.

³Not given at Chicago Undergraduate Division.

⁴Students who qualify for Chem. 107 should take the Chem. 107, 108, 122, 240 sequence rather than Chem. 101, 106, 110, 122 and thus have five additional hours of advanced electives.

Pre-Medical Curriculum

THIS CURRICULUM, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

A student transferring to this college with advanced standing must have maintained at least a 3.5 scholastic average, in terms of the University's grading system, in order to be admitted to the pre-medical curriculum.

Pre-medical students must maintain a 3.5 average during the first two semesters in the curriculum. By the end of the third semester the average for the three semesters must be raised to 3.75 and this average must be maintained. Students who fail to meet these minimum requirements will be transferred to the general curriculum.

Students who enter the College of Medicine, having met the language requirement and the appropriate group requirements in Group B., pages 46 and 47, may receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences on completion of the first year of medicine. No student may receive credit toward this degree for more than one year of work done in any other college or university.

FIRST SEMESTER		SECOND SEMESTER	
	HOURS		HOURS
Rhet. 101 — Rhetoric and Composition	3	Rhet. 102 — Rhetoric and Composition	3
Zool. 101—General Zoology	5	Zool. 132—Comparative Vertebrate Anatomy	5
Chem. 101 or 102—General Chemistry ¹	5 or 3	Chem. 105—Inorganic Chemistry and Qualitative Analysis	5
Hygiene 102 or 105	2	Math. 114 or 104—Plane Trigonometry ²	2 or 3
Physical Education	1	Physical Education	1
Electives	0-5	Electives	0-3
<i>Total</i>	15-18	<i>Total</i>	15-18
Second Year		Second Year	
Physics 101—General Physics	5	Physics 102—General Physics	5
Modern Language ³	4	Modern Language ³	4
Chem. 122—Elementary Quantitative Analysis; or Chem. 133—Elementary Organic Chemistry	5	Chem. 122—Elementary Quantitative Analysis; or Chem. 133—Elementary Organic Chemistry	5
Physical Education	1	Physical Education	1
Electives ⁴	0-3	Electives ⁴	0-3
<i>Total</i>	15-18	<i>Total</i>	15-18

¹Students having credit for chemistry in high school will register for Chem. 102 (three hours) provided they pass the placement test in chemistry.

²Math. 114, Plane Trigonometry, which is a prerequisite for physics in the sophomore year, may be taken in either the first or second semester of the freshman year, or may be replaced by an elective; the student has credit for trigonometry in high school. Math. 104 (three hours) will be substituted for students who have only two units of mathematics in high school.

³German, French, Spanish, etc. Two semesters of a modern language at the college level are required for admission to the medical school. The equivalent of two years of college work in a foreign language is required of students who are candidates for the bachelor's degree in the combined curriculum.

⁴Electives should be arranged to satisfy the requirements for admission to the medical school which the student expects to enter. The College of Medicine of the University of Illinois requires 1 semester hours from at least two of the following: economics, history, philosophy, political science, psychology, sociology.

Pre-Medical Curriculum

(Continued)

Third Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Modern Language ¹	4	Modern Language ¹	4
Chem. 247—Elementary Physical		Chem. 247—Elementary Physical	
Chemistry; or Zool. 333—		Chemistry; or Zool. 333—	
Vertebrate Embryology	4-5	Vertebrate Embryology	4-5
Electives ²	7-9	Electives ²	7-9
<i>Total</i>	15-18	<i>Total</i>	15-18

Pre-Dental Curriculum

STUDENTS APPLYING for admission to the pre-dentistry curriculum must have ranked in the upper half of their high school graduating class. They must maintain at all times in the curriculum a minimum average of 3.5. The work covered by the first two years of the pre-medical curriculum on the preceding page enables students to meet the requirements for admission to the University of Illinois College of Dentistry.

Pre-Law Curriculum

FOR STUDENTS planning the study of law, the pre-legal courses constitute a highly important phase of their education, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Personnel Bureau at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law should comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours.

The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

Pre-Veterinary Medicine

WITH THE 1948 fall semester, the pre-veterinary medicine curriculum will be offered under the College of Liberal Arts and Sciences. Students planning to enter this curriculum should consult the dean of the college for specific courses and curriculum, prior to their first registration. Failure to do so is likely to result in additional time.

¹German, French, Spanish, etc. Two semesters of a modern language at the college level are required for admission to the medical school. The equivalent of two years of college work in a foreign language is required of students who are candidates for the bachelor's degree in the combined curriculum.

²See footnote 4 on preceding page.

Home Economics

STUDENTS PLANNING to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Teacher-Training Curricula

OF THE CURRICULA in teacher-training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division as follows: Biology, Chemistry, English, French, Geography, German, Mathematics and Physical Sciences, Physics, Social Studies, Spanish, and Speech. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

Prospective students in teacher-training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

Pre-Journalism Curriculum

STUDENTS PLANNING to enter the School of Journalism are advised to register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism as a candidate for a degree, a student must have completed sixty semester hours of work in one of the undergraduate curricula, including physical education and military science with an average grade of 3.25 (one-fourth of the college work with an average grade of B and three-fourths with an average grade of C). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, eight hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism offers the following curricula: editorial, advertising, publication management, and radio.

Courses of Instruction

ACCOUNTANCY

01. **PRINCIPLES OF ACCOUNTING.** Simple transactions, accounts, books, statements; trial balances, adjustments; partnerships. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 101 and should register in Accountancy 102. S, I, and II. (3). Seniors receive only two hours credit.
02. **PRINCIPLES OF ACCOUNTING.** Similar to Accountancy 101, for those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 101 are permitted to register in Accountancy 102 and receive credit as in Accountancy 101 if their final grade is "C" or above. I and II. (2). Seniors receive only one hour credit. Prerequisite: One unit of entrance credit in bookkeeping.
05. **ACCOUNTING PROCEDURE.** Relation of business documents to accounts; balance sheet and income statement. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: Accountancy 101 or 102.
106. **ELEMENTARY COST ACCOUNTING.** Departmental, process, sequential, and job lot cost; cost records and procedures; disposition of burden. S, I, and II. (3). Prerequisite: Accountancy 105; registration or credit in Economics 102 or 108.
108. **INTERMEDIATE ACCOUNTING.** Depreciation; corporation accounts; interpretation of balance sheet and income statements. S, I, and II. (3). Prerequisite: Accountancy 106.

ARCHITECTURE

113. **ARCHITECTURE AND CIVILIZATION OF THE EARLY MEDITERRANEAN AREAS.** An analysis of space and form in Egypt, West Asia, Greece, and Rome. S, I, and II. (2). Prerequisite: Architecture 131 and 132.
114. **ARCHITECTURE AND CIVILIZATION OF EUROPE AND ISLAM, A.D. 300 to 1200.** S, I, and II. (2). Prerequisite: Architecture 113.
131. **ARCHITECTURAL DESIGN.** Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. I and II. (3). Prerequisite: Registration in General Engineering Drawing 107.
132. **ARCHITECTURAL DESIGN.** Continuation of the fundamentals of architectural design. S, I, and II. (3). Prerequisite: Architecture 131, or consent of instructor; registration in General Engineering Drawing 108.
133. **ARCHITECTURAL DESIGN.** Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. I and II. (3). Prerequisite: Architecture 132.
134. **ARCHITECTURAL DESIGN.** Continuation of Architecture 133. II. (3). Prerequisite: Architecture 133.
143. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of wood frame construction; manufacture and uses of allied materials; working drawings; detailing. S, I, and II. (3). Prerequisite: Architecture 132.
144. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of masonry and fireproof construction; manufacture and uses of materials of such construction; working drawings; detailing. I and II. (3). Prerequisite: Architecture 143, or consent of instructor.

ART

181. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal. I and II. (2).

182. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. S, I, and II. (2). Prerequisite: Art 181.
183. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Charcoal drawings from the cast; water color. S, I, and II. (2). Prerequisite: Art 182.
184. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. I and II. (2). Prerequisite: Art 183.

BACTERIOLOGY

104. **INTRODUCTORY BACTERIOLOGY.** Bacteria, yeasts, and molds; structure, morphology, and systematic relationships, their significance in general sanitation, agriculture, home economics, communicable diseases, etc. Lectures, assigned readings, demonstrations, and recitations. Designed to accompany Bacteriology 105 but may be taken separately. S, I, and II. (3). Prerequisite: Sophomore standing.
105. **INTRODUCTORY BACTERIOLOGY LABORATORY.** Bacteriological technic; morphology and physiology of bacteria and related microorganisms; preparation of media and apparatus; staining, cultivations, etc. Designed to accompany Bacteriology 104. S, I, and II. (2). Prerequisite: Credit or registration in Bacteriology 104.

BOTANY

100. **INTRODUCTORY BOTANY (GENERAL CULTURAL COURSE).** Relation of the plant world to the physical and animal worlds; progressive development of the plant and its evolutionary significance; its part in the formation of soils, the production of food, and the maintenance of life. Lectures and demonstrational quiz. Designed to accompany Botany 101, but may be elected without it. It is recommended that freshmen register in Botany 100 and 101 concurrently. S, I, and II. (3). Seniors receive only two hours credit.
101. **INTRODUCTORY BOTANY (LABORATORY).** Morphology, physiology, and ecology of representative groups of the plant world. One or two field trips. S, I, and II. (2). Prerequisite: Botany 100, or concurrent registration therein.
116. **ECONOMIC BOTANY.** Uses of plants and plant products by man; origin of cultivated plants and their relation to human history. II (3). Prerequisite: Botany 100 and 101, 104, 105, or Division of General Studies 131 and 132.
130. **PLANT PHYSIOLOGY.** General consideration of the important plant functions and processes. I. (5). Prerequisite: Botany 100 and 101, 104, or 105.

CHEMISTRY

101. **GENERAL CHEMISTRY.** For students who have no entrance credit for high school chemistry. S, I, and II. (5). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 101. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
102. **GENERAL CHEMISTRY.** Lectures, recitations, and laboratory. For all students who have one year of high school chemistry. S, I, and II. (3). Seniors receive only two hours credit. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 102 if they complete the course with a grade of "C" or higher. Students who have failed in Chemistry 101 are permitted to register for Chemistry 102 and will receive five hours credit if their final grade is "C" or higher. Prerequisite: One unit of entrance credit in chemistry. Students whose preparation proves to be inadequate for continuing this course will be required to change their registration to Chemistry 101 or 103.

03. **GENERAL CHEMISTRY.** Lectures, recitations, and laboratory. For engineering students who have had no chemistry. I and II. (4). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 103. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
04. **CHEMISTRY OF THE METALLIC ELEMENTS.** Lectures, recitations, and laboratory. Limited to students in the engineering curricula. S, I, and II. (4). Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105 or Chemistry 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
05. **INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.** Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 104 or 106. S, I, and II. (5). Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or Chemistry 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
06. **INORGANIC CHEMISTRY.** Metallic elements. For students in the chemistry and ceramic engineering curricula and for chemistry majors who are not pre-medics. S, I, and II. (5). Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104 or Chemistry 105. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
07. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. I. (5). Seniors receive only three hours credit. Prerequisite: One unit of entrance credit in chemistry and a qualifying examination.
08. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. II. (5). Seniors receive only three hours credit. Prerequisite: Chemistry 107.
10. **QUALITATIVE ANALYSIS.** Qualitative analysis of metals and inorganic compounds. Required of students whose major is chemistry and those registered in the curriculum of chemistry or chemical engineering except those who qualify for Chemistry 107-108. Lectures, recitations, and laboratory. S, I, and II. (5). Prerequisite: Chemistry 106.
122. **ELEMENTARY QUANTITATIVE ANALYSIS.** Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. Lectures, recitations, and laboratory. S, I, and II. (5). Prerequisite: Chemistry 104, 105, or 106. For students in home economics and pre-medical courses and all others who have not followed the sequence Chemistry 101, 102, or 103, 106, and 110.
133. **ELEMENTARY ORGANIC CHEMISTRY.** To fulfill the requirements for pre-medical, pre-dental, pre-veterinary medicine, dietetics, and certain home economics students. Lectures, recitations, and laboratory. S, I, and II. (5). Prerequisite: Chemistry 105 or 110.
196. **GENERAL CHEMISTRY.** Taken with Chemistry 197, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the General Education requirement in Physical Sciences for Liberal Arts students. To be offered in 1948-1949. (4). Prerequisite: Two units of high school mathematics.
197. **GENERAL CHEMISTRY.** Taken with Chemistry 196, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the General Education requirement in Physical Sciences for Liberal Arts students. To be offered in 1948-49. (4). Prerequisite: Chemistry 196.
47. **ELEMENTARY PHYSICAL CHEMISTRY.** For pre-medical students only. Lectures and laboratory. To be offered in 1948-1949. (4). Prerequisite: Chemistry 122, 133; Physics 102, or equivalent; junior standing.

CIVIL ENGINEERING

101. SURVEYING THEORY. Theoretical aspects of plane and topographic surveying; land surveying; computation of areas and volumes. First three weeks of summer term. At summer camp only. (3). Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
102. SURVEYING PRACTICE. Field practice of plane and topographic surveying. The use of the level, transit and tape in making engineering surveys and topographic maps. Last five weeks of summer term. At summer camp only. (4). Prerequisite: Civil Engineering 101, or concurrent registration therein.
103. ROUTE SURVEYING. Principles of the economic location of railways and highways; horizontal and vertical alinement for route projects; computations for earthwork quantities and distribution; railway track turnouts. I. (3). Prerequisite: Credit in civil engineering summer camp.
135. PLAIN CONCRETE. Tests for Portland cement; aggregates; field and laboratory examinations and tests; proportioning. Laboratory practice. I and II. (2). Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.
136. CONSTRUCTION MATERIALS. Manufacture, properties, and use of cast iron, wrought iron, steel, and other metals; brick and terra cotta; formation, properties, and use of stone; growth, properties, and use of timber. This course supplements Civil Engineering 135, 230, and 231. I and II. (2). Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.
160. BUILDING CONSTRUCTION. Materials, types of construction, and details for buildings. I and II. (3). Prerequisite: Sophomore standing.

ECONOMICS

100. INTRODUCTION TO BUSINESS. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. S, I, and II. (3).
101. ECONOMIC HISTORY OF THE UNITED STATES. Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only. S, I, and II. (3).
102. PRINCIPLES OF ECONOMICS. Principles of production, supply, demand, value, price, distribution. S, I, and II. (3). Prerequisite: One year of university work.
103. PROBLEMS OF ECONOMICS. Principles of economics as applied to exchange money, banking, price changes, governmental finance, etc. S and II. (3). Prerequisite: Economics 102.
108. ELEMENTS OF ECONOMICS. A briefer presentation of price determination international trade and exchange, money and banking, and public finance. For non-Commerce students only. Not open to those who have had Economics 102 and 103. S, I, and II. (3). Prerequisite: One year of university work.
170. ELEMENTS OF STATISTICS. Elements of statistics; methods of collection, presentation, and interpretation of quantitative economic data; averages, dispersion index numbers, reliability of statistics, time series analysis, and simple correlation. S, I, and II. (3). Prerequisite: Economics 102 or 108; sophomore standing.

ELECTRICAL ENGINEERING

120. ILLUMINATION ENGINEERING AND SECONDARY POWER DISTRIBUTION. Fundamentals of illumination engineering practice and principles of commercial and industrial wiring. Lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. S, I, and II. (3). Open only to students in electrical engineering. Prerequisite: Sophomore standing in electrical engineering.

26. **INTRODUCTION TO ELECTRODYNAMICS.** Study of units and relations in electrostatic, magnetostatic, and electromagnetic circuits; characteristics of circuit parameters singly and in combination. I and II. (3). Prerequisite: Physics 103; registration in Physics 104 and Mathematics 142.

ENGLISH

01. **INTRODUCTION TO POETRY.** Understanding of poetry; study of major types of poetry and of elements of versification. I and II. (3) Credit is not given for English 111 or 112 in addition to English 101 or 102, or for any of these courses in addition to English 121 and 122. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
02. **STUDY OF THE DRAMA.** Understanding of drama through the reading and analyzing of representative plays, past and modern. S, I, and II. (3). See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
11. **CHRONOLOGICAL STUDY OF MASTERPIECES.** Shakespeare, Jonson, King James Bible, Milton, Pope, and Fielding. I and II. (3). See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
12. **CHRONOLOGICAL STUDY OF MASTERPIECES.** Gay, Goldsmith, Sheridan, Austen, Byron, Dickens, Arnold, Eliot, Browning. S, I, and II. (3). See note under English 101. Seniors receive only two hours credit. Prerequisite: English 111.
13. **AMERICAN LITERATURE.** A survey of American literature. I and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
14. **AMERICAN LITERATURE.** A survey of American literature. S, I, and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
21. **CHIEF ENGLISH WRITERS BEFORE 1800.** Chaucer, More, Shakespeare, Milton, Swift, Fielding, Boswell, Johnson. S, I, and II. (4). See note under English 101. This course, plus English 122, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing.
22. **CHIEF ENGLISH WRITERS OF THE NINETEENTH CENTURY.** Nineteenth-century men of letters on religion, politics, economics, conduct, and social life. S, I, and II. (4). See note under English 101. This course, plus English 121, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing.
31. **INTRODUCTION TO SHAKESPEARE.** S, I, and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
44. **CONTEMPORARY POETRY.** American poetry from Whitman to Sandburg; and English poetry from the Pre-Raphaelites to Masefield. To be offered in 1948-1949. (3). Prerequisite: Six hours of English literature, or junior standing.

FRENCH

01. **ELEMENTARY COURSE.** Grammar, pronunciation, reading of modern authors, composition, conversation. For students who have no credit in French. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for French 101 without French 102.
02. **ELEMENTARY COURSE (CONTINUED).** S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: French 101, or one year of high school French.
03. **MODERN FRENCH.** Rapid reading of modern authors; syntax and composition. S, I, and II. (4). Prerequisite: French 102, or two years of high school French.
04. **MODERN FRENCH (CONTINUED).** Rapid reading of modern authors; syntax and composition. I and II. (4). Prerequisite: French 103, or three years of high school French.

201. INTRODUCTION TO FRENCH LITERATURE. I. (3). Prerequisite: French 104, or four years of high school French.
202. INTRODUCTION TO FRENCH LITERATURE (CONTINUED). II. (3). Prerequisite: French 104, or four years of high school French.

GENERAL ENGINEERING DRAWING

101. ELEMENTS OF DRAWING. Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Plane geometry.
102. DESCRIPTIVE GEOMETRY. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing. S, I, and II. (4). Prerequisite: Plane and solid geometry.
103. AIRCRAFT DRAFTING AND LOFTING. Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting — plane, tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. I and II. (3). Prerequisite: General Engineering Drawing 101 or 104, and 102.
104. ADVANCED DRAWING. Review of orthographic projection and working drawings; isometric, oblique, perspective, chart and diagram, topographical, architectural, and structural drawing. I and II. (4). Prerequisite: General Engineering Drawing 101, or substantial equivalent.
106. ELEMENTS OF DRAWING. Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings, piping and perspective drawing, and structural drawing. For students in chemical and metallurgical engineering. I and II. (3). Prerequisite: Plane geometry.
107. ARCHITECTURAL PROJECTIONS. Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. S, I, and II. (2). Prerequisite: Plane geometry.
108. ARCHITECTURAL PROJECTIONS (CONTINUED). Shades and shadow oblique, isometric, and perspective drawing; developments. S, I, and II. (2). Prerequisite: General Engineering Drawing 107. Students completing General Engineering Drawing 107 and 108 may substitute them for General Engineering Drawing 102.
110. PICTORIAL DRAWING. Mechanical and freehand drawings of axonometric oblique and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. S, I, and II. (3). Prerequisite: General Engineering Drawing 102, or 107 and 108.
112. GRAPHICAL CALCULATIONS. Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula of the College of Engineering. S, I, and II. (1). Prerequisite: General Engineering Drawing 101; Mathematics 122.

GEOGRAPHY

101. **ELEMENTS OF GEOGRAPHY.** The geographic point of view; elements of physical landscape; planetary relations, climate, climatic regions, land-forms; elements of material culture. Five hours of lecture, discussion, and quiz. S, I, and II. (5). Seniors or those with credit in Geography 104 receive only four hours credit.
103. **ECONOMIC GEOGRAPHY.** Geographic conditions affecting industries, production, and commerce of the world; development and relation of commercial areas to location and availability of resources; markets and transportation routes. Discussion and quiz. S, I, and II. (5). Seniors or those with credit in Geography 104 will receive only four hours credit. Not open to students who have credit in Geography 105 or 106. Prerequisite: Geography 101.
106. **GENERAL GEOGRAPHY.** A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 101, 103, 104, or 105. S, I, and II. (5). Seniors receive only four hours credit.
123. **GEOGRAPHY OF ILLINOIS.** Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. II. (3). Prerequisite: Geography 101, 104, 106, or consent of instructor.

GEOLOGY

102. **HISTORICAL GEOLOGY.** Evolution of the earth and its life. Discussion and laboratory. I and II. (4). Seniors receive only three hours credit. Prerequisite: Geology 101, or 103 and 104, or Division of General Studies 141.
103. **GENERAL GEOLOGY.** Cultural course. Surface features; agencies and processes of change; development of topographic forms; rocks and minerals; volcanoes, earthquakes, mountain-making forces; introduction to the history of the earth and the development of life. Lectures, quiz, and one field trip. S, I, and II. (3). Seniors receive only two hours credit.
104. **GENERAL GEOLOGY LABORATORY.** S, I, and II. (2). Prerequisite: Geology 103, or concurrent registration therein, or Division of General Studies 141 and 142.
150. **GEOLOGY FOR ENGINEERS.** I and II. (3). Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

101. **ELEMENTARY COURSE.** Oral practice, reading, and grammar for beginners. Not open to students who have had high school credit in this language. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for German 101 without German 102.
102. **ELEMENTARY COURSE (CONTINUED).** Oral practice, reading, and grammar. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: German 101, or one year of high school German, or equivalent.
103. **INTERMEDIATE COURSE.** Modern narrative prose. Oral practice and sight reading. S, I, and II. (4). Prerequisite: German 102, or two years of high school German, or equivalent.
104. **INTERMEDIATE COURSE (CONTINUED).** Literary reading. Classical and modern narrative prose. Oral practice and sight reading. S, I, and II. (4). Prerequisite: German 103, or three years of high school German, or equivalent.
210. **MASTERPIECES OF GERMAN LITERATURE.** Introduction into German literature, its subjects, forms, and ideals. I. (3). Prerequisite: German 104, or equivalent, or consent of instructor.

HISTORY

111. MODERN EUROPEAN HISTORY FROM THE RENAISSANCE TO 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. I and II. (4). Seniors receive only three hours credit.
112. MODERN EUROPEAN HISTORY, 1815 TO THE PRESENT. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. S, I, and II. (4). Seniors receive only three hours credit.
131. HISTORY OF ENGLAND TO 1688. History of the British peoples to the close of the seventeenth century. I and II. (3). Seniors receive only two hours credit.
132. HISTORY OF ENGLAND, 1688 TO THE PRESENT. Modern history of the United Kingdom; colonial and imperial development. S, I, and II. (3). Seniors receive only two hours credit.
151. HISTORY OF THE UNITED STATES TO 1828. Colonial foundations, the movement for independence, early years of the Republic. I. (3). Prerequisite: Sophomore standing.
152. HISTORY OF THE UNITED STATES, 1828-1948. A century of national life and organization. II. (3). Prerequisite: Sophomore standing.
181. THE ANCIENT WORLD. Ancient empires and Greece. I. (3). Prerequisite: Sophomore standing.
182. THE ANCIENT WORLD. Rome. II. (3). Prerequisite: Sophomore standing.

HYGIENE

102. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate women during their first year of residence. I and II. (2). Seniors receive only one hour credit.
105. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate men during their first year of residence. I and II. (2). Seniors receive only one hour credit.

MATHEMATICS

103. INTRODUCTION TO COLLEGE ALGEBRA. To be offered in 1948-1949. (3). Students having $1\frac{1}{2}$ entrance units in algebra receive no credit. Seniors receive no credit.
104. ELEMENTS OF ALGEBRA AND TRIGONOMETRY. For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 122. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 114 below. I and II. (3). Prerequisite: High school algebra, 1 unit; plane geometry, 1 unit.
106. SOLID GEOMETRY. Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. S, I, and II. (3). Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
108. PLANE GEOMETRY FOR VETERANS. Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course. I and II. No credit.
111. ALGEBRA. S, I, and II. To be superseded by Mathematics 103 in 1948-1949. (5). Students having $1\frac{1}{2}$ entrance units in algebra receive only three hours credit. Seniors receive only four hours credit. Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
112. COLLEGE ALGEBRA. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematiaics 103; plane geometry, 1 unit, or Mathematics 108.

114. PLANE TRIGONOMETRY. S, I, and II. (2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
115. ADVANCED TRIGONOMETRY. Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, De Moivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. I and II (2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 114, or entrance trigonometry ($\frac{1}{2}$ unit).
117. COMBINED FRESHMAN MATHEMATICS. A combined course integrating all the usual topics of algebra, trigonometry, and analytic geometry, and also some topics of differential calculus. For students of chemistry, chemical engineering, ceramic engineering, ceramics, metallurgy, and mining engineering. I. (5). Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
122. ANALYTIC GEOMETRY. Plane and solid analytic geometry. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Mathematics 111 or 112 and 114 or 115.
127. COMBINED FRESHMAN MATHEMATICS (CONTINUED). II. (4). Prerequisite: Mathematics 117.
132. CALCULUS. First course for students of mathematics and engineering. S, I, and II. (5). Prerequisite: Mathematics 122.
142. CALCULUS. Second course for students of mathematics and engineering. S, I, and II. (3). Prerequisite: Mathematics 132.
161. STATISTICS. II. (3). Prerequisite: Mathematics 111 or 112; sophomore standing.
164. DIFFERENTIAL EQUATIONS. II. (3). Prerequisite: Mathematics 132 and 142 (or 137-147).

MECHANICAL ENGINEERING

171. MECHANISM. A study of the transmission and modification of motion by link-work, cams, gears, belts, ropes, chains, etc.; theory of gear tooth action; gear tooth systems and production methods; point paths, displacement diagrams. I and II. (2). Prerequisite: Registration in Mathematics 132.
182. MANUFACTURING PROCESSES. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstration. To be offered in 1948-1949. (3). Prerequisite: Sophomore standing in aeronautical engineering, or consent of instructor.
183. MATERIALS CASTING. Design of wood and metal patterns; metallurgy of gray iron; floor, bench, and machine molding; core making; brass furnace and cupola practice; sand testing. S, I, and II. (3). Prerequisite: Sophomore standing; General Engineering Drawing 101.
184. METAL PROCESSING. Machine tools; use of fixtures, jigs, and tools for producing interchangeable parts. S, I, and II. (3). Prerequisite: Sophomore standing; General Engineering Drawing 101.

PHILOSOPHY

01. INTRODUCTION TO PHILOSOPHY. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in western culture. S, I, and II. (3). Prerequisite: Sophomore standing.
02. LOGIC. Reasoning, detection of fallacies, evidence. S, I, and II. (3). Prerequisite: Sophomore standing.

105. MORAL IDEAS AND PRACTICE. I and II. (2). Prerequisite: Sophomore standing. Credit is not given for both Philosophy 105 and 103.

PHYSICAL EDUCATION FOR MEN

- 101, 102, 103, 104. PRESCRIBED EXERCISES. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P.E.M. 101. Students enrolling for the second, third, and fourth time should register for P.E.M. 102, 103, 104, respectively. S, I, and II. (1).
106. BASIC PHYSICAL FITNESS. S, I, and II. (1).
108. BEGINNING SWIMMING. S. (1).
112. INDIVIDUAL TUMBLING STUNTS. S, I, and II. (1).
113. DOUBLE TUMBLING STUNTS. I and II. (1).
114. APPARATUS STUNTS. I and II. (1).
117. BOXING. I and II. (1).
118. WRESTLING. S, I, and II. (1).
123. WEIGHT LIFTING. S, I, and II. (1).
129. VOLLEYBALL. I and II. (1).
136. BADMINTON. S, I, and II. (1).
140. BOATING AND FISHING. To be offered in 1948-1949. (1). Prerequisite: Two hours of credit in Physical Education and a score on the Physical Fitness Test that allows the student a free choice of activities, or approval of the Director of Physical Education.
150. PROFESSIONAL ORIENTATION. To be offered in 1948-1949. (2).

PHYSICAL EDUCATION FOR WOMEN

100. FUNDAMENTALS OF MOTOR FITNESS. S, I, and II. (1).
101. INDIVIDUAL GYMNASTICS. Recommendation from the Department of Health Service is necessary for registration in this course. S, I, and II. (1).
105. ELEMENTARY RHYTHMS. S, I, and II. (1).
106. INTERMEDIATE RHYTHMS. I and II. (1).
107. ADVANCED RHYTHMS. An opportunity for those who have completed previous work to further their skills in muscular control and extend their creative interests and appreciations of art through the medium of the dance. To be offered in 1948-1949. (1). Prerequisite: Physical Education for Women 105 and 106.
110. ELEMENTARY SWIMMING. S. (1).
123. BASKETBALL. I and II. (1).
124. VOLLEYBALL. I and II. (1).
125. SOFTBALL. S, I, and II. (1).
130. BADMINTON. I and II. (1).
132. BOWLING. S. (1).
135. ARCHERY. I and II. (1).
141. TUMBLING AND APPARATUS STUNTS. To be offered in 1948-1949. (1).
143. AMERICAN SQUARE DANCE. I and II. (1).
144. ELEMENTARY FOLK DANCE. S and I. (1).

PHYSICS

101. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences and in architecture. I and II. (5). Prerequisite: Trigonometry.

102. **GENERAL PHYSICS (LIGHT, ELECTRICITY, AND MAGNETISM)**. Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and in architecture. II. (5). Prerequisite: Physics 101.
103. **GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT)**. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. S, I, and II. (5). Prerequisite: Registration in Mathematics 132.
104. **GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT)**. Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. S, I, and II. (5). Prerequisite: Physics 103.

PHYSIOLOGY

01. **MAMMALIAN PHYSIOLOGY**. A survey of the structure and function of the human body. Lectures and demonstrations. S, I, and II. (3). Seniors receive only two hours credit. Credit is not given for Physiology 102, 103, or 104-105, in addition to 101.

POLITICAL SCIENCE

10. **GOVERNMENT IN ILLINOIS**. Designed primarily for students who do not take Political Science 150 or 151. II. (2). Only one hour credit for this course is allowed to students who also take both Political Science 150 and 151. Prerequisite: Sophomore standing.
50. **AMERICAN GOVERNMENT: ORGANIZATION AND POWERS**. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. S, I, and II. (3). Prerequisite: Sophomore standing.
51. **AMERICAN GOVERNMENT: FUNCTIONS**. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. S, I, and II. (3). Students may not receive credit for both Political Science 151 and 101-102. Prerequisite: Sophomore standing; Political Science 150, or consent of the department.

PSYCHOLOGY

00. **INTRODUCTION TO PSYCHOLOGY**. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. S, I, and II. (4). Prerequisite: Sophomore standing.
20. **FIELDS OF PSYCHOLOGY**. Psychological principles of man's development and place in society, industry, education, and legal institutions. I. (4). Prerequisite: Psychology 100, or junior standing.
45. **INDUSTRIAL PSYCHOLOGY**. Psychology of industrial work and management; employee relationships. II. (2). Prerequisite: Psychology 100.
00. **CHARACTER AND PERSONALITY**. Analysis of the non-intellectual aspects and determinants of mentality and conduct, with special application to behavior problems and personnel psychology. S and II. (3). Prerequisite: Psychology 100.

RHETORIC

00. **RHETORIC 0**. Open to students who fail the placement test for admission to Rhetoric 101. Intensive review of fundamentals, with considerable practice in

- composition. Students passing this course will be admitted to Rhetoric 101 without further examination. S, I, and II. (No credit).
101. FRESHMAN RHETORIC AND COMPOSITION. This course provides elementary training and practice in the comprehension and in the expression of both written and oral English. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: A passing grade on the Rhetoric 101 placement examination or a passing grade in Rhetoric 100. This course is not counted toward a major in English.
 102. FRESHMAN RHETORIC AND COMPOSITION. This course provides elementary training and practice in the comprehension and in the expression of both written and oral English. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: Rhetoric 101. This course is not counted toward a major in English.
 133. EXPOSITION. I and II. (3). Prerequisite: Rhetoric 101 and 102; sophomore standing.
 144. NARRATION AND DESCRIPTION. Elements of narrative writing. I and II. (3). Prerequisite: Rhetoric 101 and 102; sophomore standing.
 151. BUSINESS LETTER WRITING. S, I, and II. (2). Prerequisite: Rhetoric 101 and 102. This course is not counted toward a major in English.

SOCIOLOGY

100. PRINCIPLES OF SOCIOLOGY. Origins, forms, and functions of social groups; societal bonds, dependence between institutions and between the individual and the social organization; social processes, methods of social change. S, I, and II. (3). Prerequisite: Sophomore standing.
110. SOCIAL FACTORS IN PERSONALITY. Nature of person and relation to institutions, social order, and development. S, I, and II. (3). Prerequisite: Sophomore standing.
140. SOCIAL CONTROL. Conventionalized nature of conduct; group norms and sanction; factors in disorganization; mechanisms of control. To be offered in 1948-1949. (2). Prerequisite: Sophomore standing.

SPANISH

101. ELEMENTARY SPANISH. Pronunciation, grammar, reading of easy prose. For students who have no credit in Spanish. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for Spanish 101 without 102.
102. ELEMENTARY SPANISH (CONTINUED). S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Spanish 101, or one year of high school Spanish.
103. MODERN SPANISH. Grammar review; reading. S, I, and II. (4). Prerequisite: Spanish 102, or two years of high school Spanish.
104. MODERN SPANISH (CONTINUED). S, I, and II. (4). Prerequisite: Spanish 103, or three years of high school Spanish.
201. INTRODUCTION TO SPANISH LITERATURE. Reading of modern authors Spain and Latin-America. I. (3). Prerequisite: Spanish 104, or four years high school Spanish.
202. INTRODUCTION TO SPANISH LITERATURE (CONTINUED). I and II. (3). Prerequisite: Spanish 201.

SPEECH

101. PRINCIPLES OF EFFECTIVE SPEAKING. Speech composition; delivery; how to hold the attention and interest of the audience. Short expository and argumentative talks on selected topics. S, I, and II. (3). Seniors receive only two hours credit. Open to freshmen.

5. VOICE AND ARTICULATION. A drill course for the improvement of the normal speaking voice. II. (2). Seniors receive only one hour credit. Prerequisite: Consent of instructor. Open to freshmen.
1. BUSINESS AND PROFESSIONAL SPEAKING. Persuasion, composition, and delivery of common types of business and semi-public addresses. S, I, and II. (2). Prerequisite: Speech 101; sophomore standing.
7. ARGUMENTATION. Construction of arguments, adaptation to audiences; refutation, practice debates on topics of current interest. I and II. (3). Prerequisite: Speech 101; sophomore standing.
6. ORAL INTERPRETATION OF LITERATURE. Principles of interpretation; analysis and oral reading of prose literature and verse. S, I, and II. (2). Seniors receive only one hour credit. Open to freshmen.
1. FUNDAMENTALS OF ACTING. II. (3). Prerequisite: Speech 141; sophomore standing.

THEORETICAL AND APPLIED MECHANICS

0. ANALYTICAL MECHANICS (STATICS). Resultants of force systems, algebraic and graphical condition of equilibrium of force systems. Analysis of forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. S, I, and II. (2). Prerequisite: Mathematics 142.
4. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. To be offered in 1948-1949. (4). Prerequisite: Registration in Mathematics 142.
6. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211. S, I, and II. (5). Prerequisite: Registration in Mathematics 142.
1. ELEMENTS OF MECHANICS (STATICS). Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. I and II. (3). Prerequisite: Mathematics 122.
2. STRENGTH OF MATERIALS. Relationships between external forces acting on beams and the stresses produced; shear, moment, slope, and deflection diagrams; moment of inertia; columns. For architects only. I and II. (3). Prerequisite: Theoretical and Applied Mechanics 171.
1. ANALYTICAL MECHANICS (DYNAMICS). Displacement, velocity and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, and impulse and momentum. S, I, and II. (3). Prerequisite: Theoretical and Applied Mechanics 150.

ZOOLOGY

1. GENERAL ZOOLOGY. Animal biology; structure, function, origin, development and interrelationships of animals. S, I, and II. (5). Seniors receive only four hours credit.
2. COMPARATIVE VERTEBRATE ANATOMY. Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their function and evolution. Lectures, laboratory, and quiz. S, I, and II. (5). Prerequisite: Zoology 101 or equivalent; a grade of "C" or above in Zoology 101 is required of freshmen.
3. VERTEBRATE EMBRYOLOGY. The development of the vertebrate body and its organs. Lectures, laboratory, and quiz. To be offered in 1948-1949. (5). Prerequisite: Zoology 132; junior standing.

Academic Personnel

Chicago Undergraduate Division

PROFESSORS

- Caveny, Charles Claire, Ph.D., Dean of the Undergraduate Division in Chicago, with the rank of Professor.
Erskine, Earl Bradley, M.D., Professor of Hygiene and Director of Health Service
Hoelscher, Randolph Philip, M.S., C.E., Professor of General Engineering Drawing and Associate Dean of Engineering Sciences.

VISITING PROFESSOR

- Nowlan, Frederick S., Ph.D., Visiting Professor of Mathematics.

ASSOCIATE PROFESSORS

- Bailey, Harold Wood, Ph.D., LL.D., Associate Professor of Mathematics and Associate Dean of Liberal Arts and Sciences.
Barber, Hollis William, Ph.D., Associate Professor of Social Sciences.
Carlson, Clarence I., B.S., Associate Professor of General Engineering Drawing.
Corliss, John Johnson, Ph.D., Associate Professor of Mathematics and Chairman of the Division.
Fish, William D., M.D., Associate Professor of Hygiene and Assistant to the Health Director.
Hackett, Robert Phillip, Ph.D., Associate Professor of Accountancy and Associate Dean of Commerce and Business Administration.
Haines, Russel D., M.S., C.P.A., Associate Professor of Accountancy.
Harris, Roscoe E., Ph.D., Associate Professor of Physics and Head of the Department
Hopkins, Dwight Lucian, Ph.D., Associate Professor of Biological Sciences and Chairman of the Division.
Jones, John Oliver, M.S., Associate Professor of Physical Education for Men, Head of the Department, and Director of the Division of Physical Education.
Kozacka, Joseph Stanley, M.S., Associate Professor of Mechanical Engineering, in charge of Shop Laboratories.
Mayrand, Elizabeth, M.D., Associate Professor of Hygiene and Medical Adviser for Women.
McEldowney, Harold B., B.S., Associate Professor of Architecture.
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Stepleton, Pauline D., M.D., Associate Professor of Hygiene and Medical Adviser for Women.
Van Keuren, Ernest Canfield, Ph.D., Associate Professor of English and Chairman of the Division of Humanities.

ASSISTANT PROFESSORS

- Anderson, Karl C., B.S., Assistant Professor of Architecture.
Babler, Bernard Joseph, Ph.D., Assistant Professor of Physical Sciences.
Barton, Helen M., Ed.D., Assistant Professor of Physical Education and Chairman of the Women's Department.
Bucher, Gladys Rosalin, Ph.D., Assistant Professor of Biological Sciences.
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- Berg, Edwin Weidenaar, M.B.A., Instructor in Accountancy and Staff Counselor in the Student Personnel Bureau.
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Presley, Halina J., A.M., Instructor in Biological Sciences.
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Reith, Gertrude Louise, A.M., Instructor in Social Sciences.
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Richardson, John Frederick, A.M., Instructor in Art.
Richey, Mildred June, A.M., Instructor in English.
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egle, Peter Eugene, A.M., Instructor in Social Sciences and Counselor in the Student Personnel Bureau.

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telling, Mrs. Lois Bradwell, B.S., Instructor in Mathematics.

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trable, Mrs. Jane S., B.S. in L.S., Circulation Librarian with the rank of Instructor.

tuermer, Ray, B.S., Instructor in Architecture and Art.

taaffe, E. J., A.M., Instructor in Social Sciences.

reichmann, Mrs. Elizabeth, A.M., Instructor in Foreign Languages.

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immis, Mrs. Beatrice Stephany, A.M., Instructor in English.

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agman, Julius, B.S., Instructor in Physical Sciences.

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Villett, Maurita Frnaces, A.M., Instructor in English.

Villiams, Mrs. Rena Medlin, B.S., Instructor in English.

Vilson, Charles Craig, B.Ed., Instructor in Mathematics.

Vright, Mrs. Elizabeth V., A.M., Instructor in English.

Vright, Paul Randall, M.S., Instructor in Physical Sciences.

rankow, Henry George, Jr., A.M., Instructor in Accountancy.

ort, George J., B.S., Instructor in General Engineering Drawing.

leimer, Jeannette Mary, M.S., Instructor in Physical Sciences.

erebko, Andrew Jerome, B.S., Instructor in Physics.

ASSISTANTS

ajzenberg, Fay, B.S., Assistant in Physics.

erman, Herbert L., B.S., Assistant in Physics.

ordham, Sheldon L., B.S., Assistant in Physical Education for Men; Track and Cross Country Coach.

rey, Harold Jacob, B.S., Assistant in Physical Education for Men; Gymnastics Coach.

Gedvilas, Leo L., B.S., Assistant in Physical Education for Men; Basketball Coach.

Geldard, Mrs. Winifred B., A.M., Assistant in Economics.

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ohnson, Arthur H., B.S., Assistant in Accountancy.

arson, Carl Martin, B.S., Assistant in Economics.

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chneider, Albert Joseph, B.S., Assistant in Accountancy.

nyder, Ray E., B.S., Assistant in Physics.

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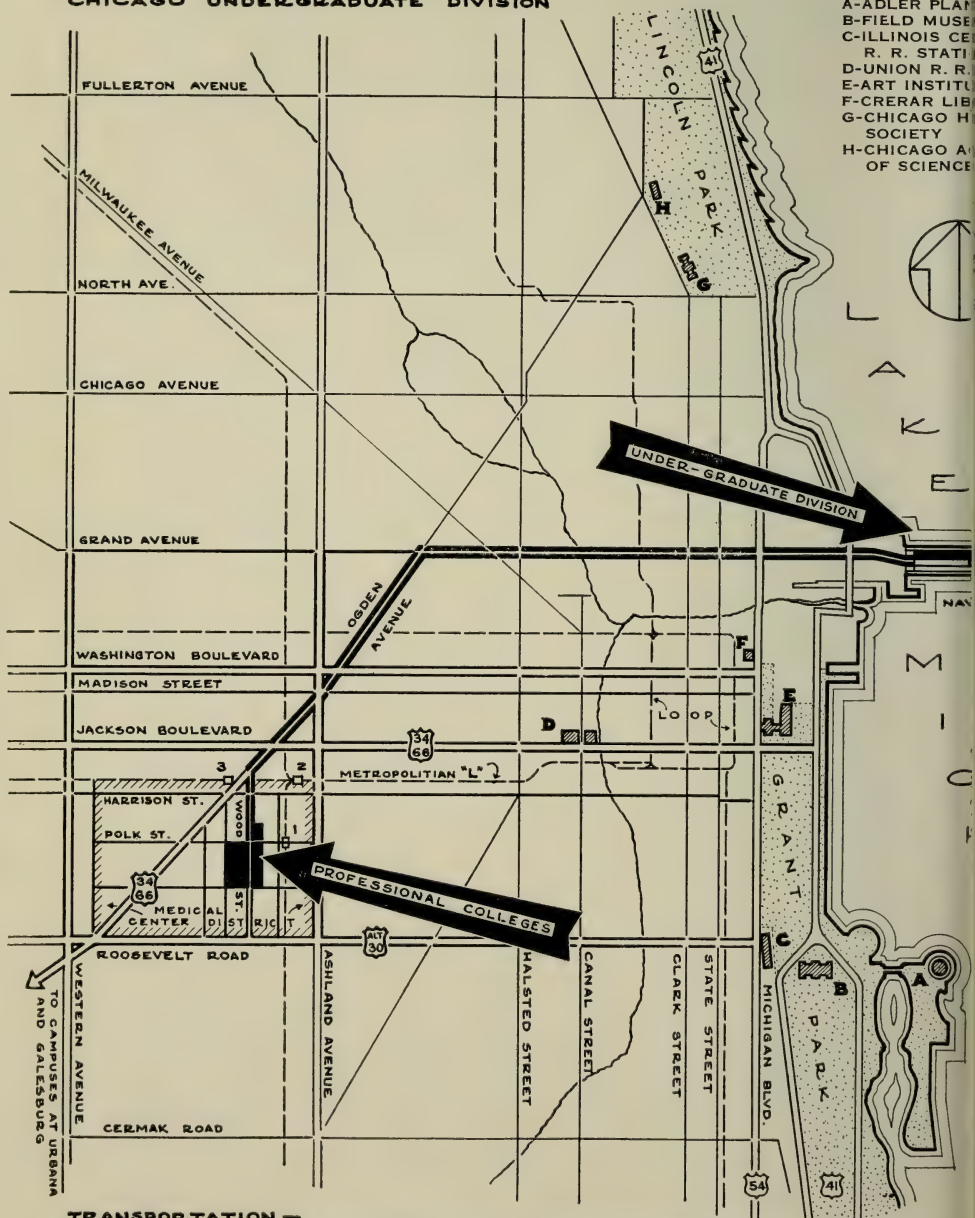
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UNIVERSITY OF ILLINOIS

CHICAGO PROFESSIONAL COLLEGES
CHICAGO UNDERGRADUATE DIVISION

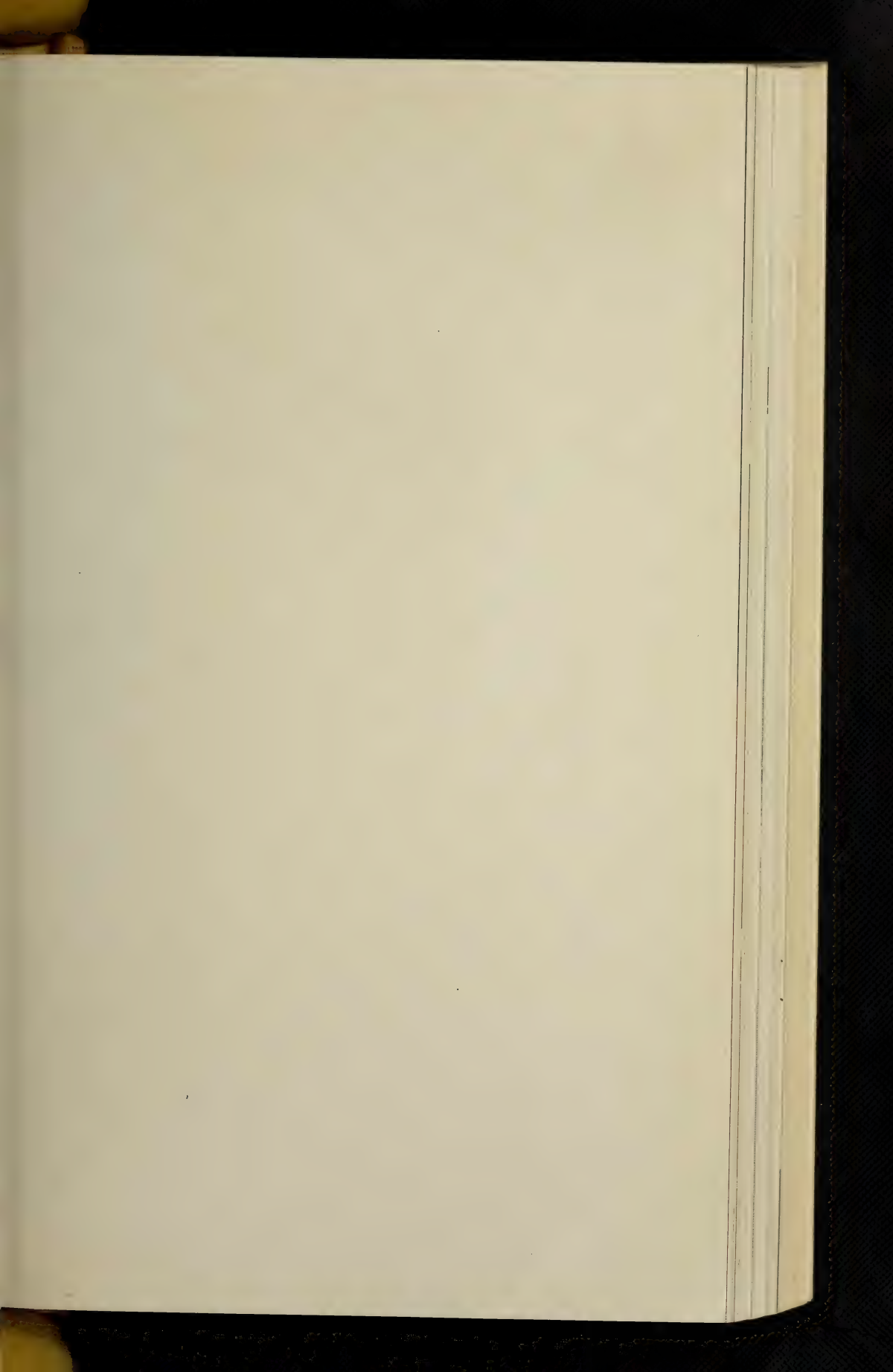
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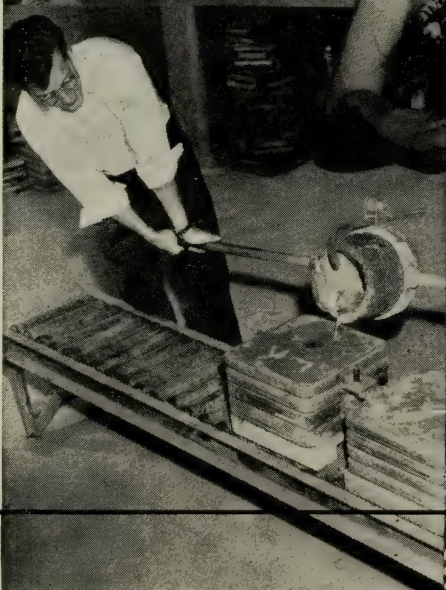
- A-ADLER PLANETARIUM
- B-FIELD MUSEUM
- C-ILLINOIS CENTRAL R. R. STATION
- D-UNION R. R. STATION
- E-ART INSTITUTE OF CHICAGO
- F-CRERAR LIBRARY
- G-CHICAGO HISTORICAL SOCIETY
- H-CHICAGO ACADEMY OF SCIENCE



TRANSPORTATION —

FEEDER BUS — POLK & WOOD STREETS, TRANSFER GRAND AVE. STREET CAR.
STREET CAR — ASHLAND CAR ON PAULINA ST., TRANSFER GRAND AVENUE.
"L" STATIONS: 1-POLK ST. 2-MARSHFIELD 3-OGDEN AVE., ALL TRAINS TO LOOP,
TRANSFER STONY ISLAND STREET CAR.

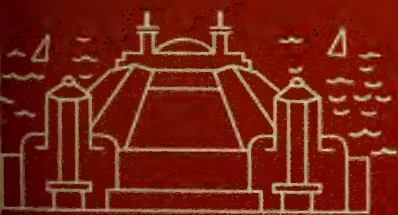




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DIVISION



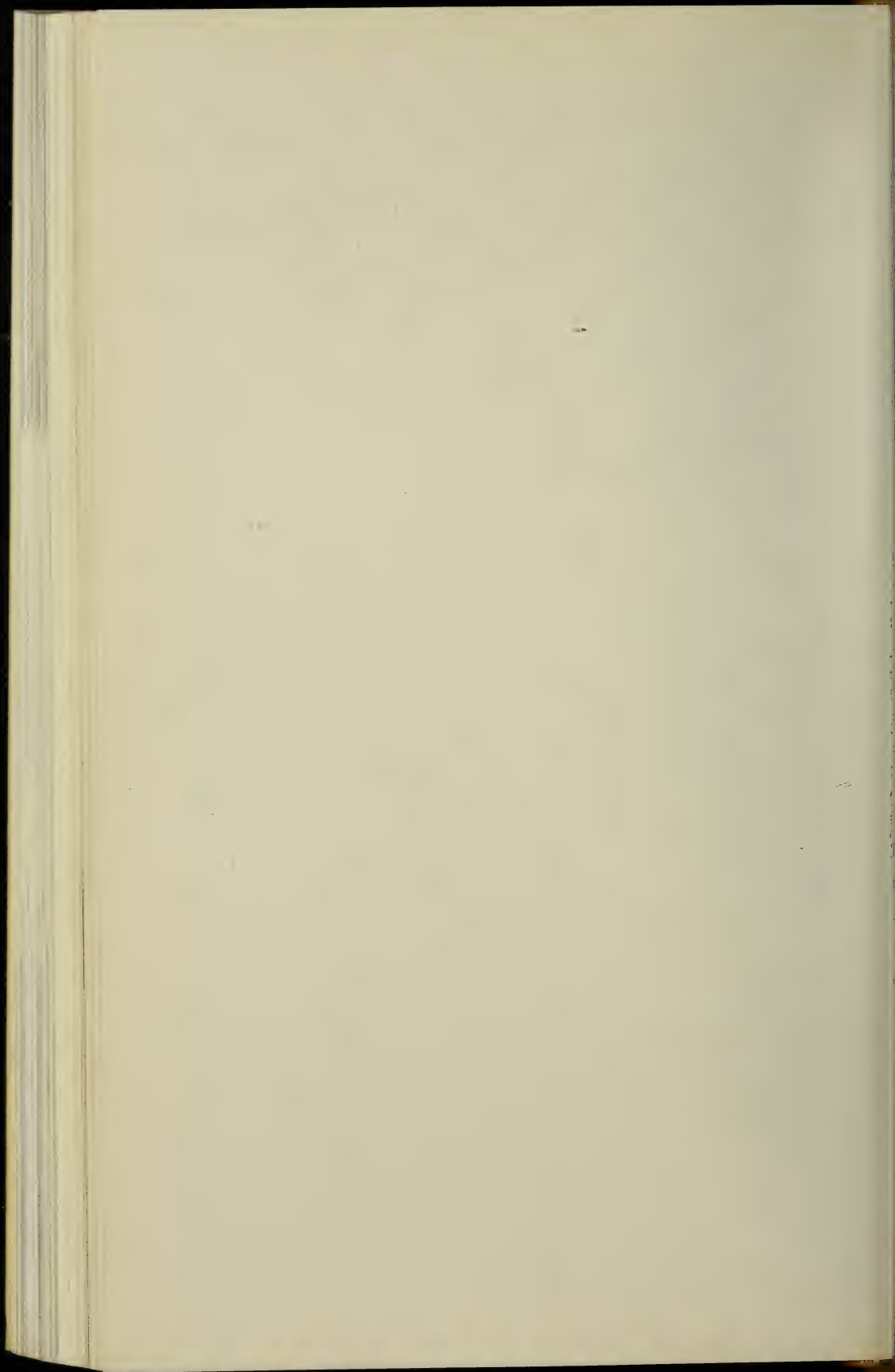
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UNIVERSITY
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CALENDAR

Chicago Undergraduate Division

Navy Pier

1949 — FIRST SEMESTER

Sept. 12, Mon.—Sept. 17, Sat. Freshman Week
Sept. 19, Mon.—Sept. 22, Thurs. Registration
Sept. 23, Fri. Instruction Begins
Nov. 23, Wed., 12 noon Thanksgiving Vacation Begins
Nov. 28, Mon., 12 noon Thanksgiving Vacation Ends
Dec. 3, Sat. Illinois Day (State admitted to the Union, 1818)
Dec. 20, Tues. 6 p.m. Christmas Vacation Begins

1950 —

Jan. 3, Tues., 12 noon Christmas Vacation Ends
Jan. 23, Mon.—Jan. 31, Tues. Semester Examinations

1950 — SECOND SEMESTER

Feb. 6, Mon.—Feb. 10, Fri. Freshman Week
Feb. 11, Sat.—Feb. 14, Tues. Registration
Feb. 15, Wed. Instruction Begins
Mar. 2, Thurs. University Day (University opened, 1868)
Apr. 6, Thurs., 12 noon Easter Vacation Begins
Apr. 10, Mon., 12 noon Easter Vacation Ends
May 12, Fri. Honors Day
May 30, Tues. Memorial Day
June 2, Fri.—June 10, Sat. Semester Examinations

1950 — SUMMER SESSION

June 26, Mon., and June 27, Tues. Registration
June 28, Wed. Instruction Begins
July 4, Tues. Independence Day
Aug. 18, Fri.,—Aug. 19, Sat. Summer Session Examinations

UNIVERSITY OF ILLINOIS

BOARD OF TRUSTEES

Members ex Officio

ADLAI E. STEVENSON, Governor of Illinois.....Springfield
VERNON L. NICKELL, Superintendent of Public Instruction.....Springfield

Elected Members

Term 1945-1951

WALTER W. McLAUGHLIN.....Citizens Building, Decatur 30
DR. KARL A. MEYER.....Cook County Hospital, Chicago 12
KENNEY E. WILLIAMSON.....606 Lehmann Building, Peoria 2

Term 1947-1953

JOHN R. FORNOF.....122 S. Bloomington Street, Streator
MRS. DORIS S. HOLT.....330 E. Sixth Street, Flora
PARK LIVINGSTON.....20 N. Wacker Drive, Chicago 6

Term 1949-1955

WIRT HERRICK.....120½ E. Main Street, Clinton
ROBERT Z. HICKMAN.....1202 First National Bank Building, Danville
MRS. FRANCES B. WATKINS.....5831 Blackstone Avenue, Chicago 37

Officers of the Board

KENNEY E. WILLIAMSON, President.....Peoria
HARRISON E. CUNNINGHAM, Secretary.....Urbana
IRVIN L. PORTER, Treasurer.....Chicago 90
LOYD MOREY, Comptroller.....Urbana

Committee on the Chicago Departments

DR. KARL A. MEYER (Chairman), MRS. FRANCES B. WATKINS,
PARK LIVINGSTON

ADMINISTRATIVE OFFICERS AT URBANA

GEORGE DINSMORE STODDARD, Ph.D., Litt.D., L.H.D., LL.D.,
President of the University

COLEMAN ROBERTS GRIFFITH, Ph.D., LL.D., *Provost*

GEORGE PHILIP TUTTLE, B.S., *Director of Admissions and Records*



Charles C. Caveny
Dean

Your University

THE UNIVERSITY OF ILLINOIS provides educational opportunities at the Chicago Undergraduate Division for students who find it to their advantage to live in the Chicago metropolitan area while attending college. Now entering its fourth school year, the Undergraduate Division offers a well-rounded educational program.

The Chicago Undergraduate Division is comprised of three colleges, the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Engineering. In addition, architecture and architectural engineering curricula, as a part of the College of Fine and Applied Arts, are offered under the administration of the College of Engineering.

The Chicago Undergraduate Division operates as an integral part of the University of Illinois and the students enrolled have the same status as students matriculating on the Urbana campus. Courses of instruction, the schedule of fees, and the admission requirements are identical with those on the Urbana campus. Students completing the curricula at Navy Pier are given priority in transferring to the Urbana campus to complete their work for degrees.

Excellent instructional facilities are provided in the school's 68 classrooms and 33 modern, fully-equipped laboratories. A 35,000 volume library, an extensive counseling program, food service, and well-furnished lounges and other recreational facilities supplement the academic program. A large gymnasium adjacent to the Pier houses the athletic program.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of the University of Illinois tradition.

ADMINISTRATIVE OFFICERS

Chicago Undergraduate Division

CHARLES C. CAVENY.....	Dean
HAROLD N. COOLEY.....	Assistant to the Dean
ROBERT E. PORTER.....	Assistant to the Business Manager
ROBERT P. HACKETT.....	Associate Dean Commerce and Business Administration
EDWIN A. WOLLESON.....	Dean of Students
WARREN O. BROWN.....	Dean of Men and Veterans Counselor Division of Special Services for War Veterans
ANN BROMLEY.....	Dean of Women
FREDERICK W. TREZISE.....	Associate Dean Engineering Sciences
RUPERT M. PRICE.....	Assistant Dean Engineering Sciences
HAROLD E. TEMMER.....	Examiner and Recorder
EARL B. ERSKINE, M. D.,.....	Director Health Service
HAROLD W. BAILEY.....	Associate Dean Liberal Arts and Sciences
ARTHUR D. PICKETT.....	Assistant to the Dean Liberal Arts and Sciences
DAVID K. MAXFIELD.....	Librarian
RAY C. MARKS.....	Personnel Officer
JOHN O. JONES.....	Director Physical Education
GILBERT J. MILLER.....	Assistant Superintendent of Buildings and Grounds
JEAN H. MAURY.....	Manager Public Information
PAUL C. GREENE.....	Director Student Counseling Bureau
RUTH M. FARNHAM.....	Veterans Benefits Administrator



Harold E. Temmer
Examiner and Recorder

ADMISSION

There are Seven Steps

IN ORDER TO BECOME A STUDENT at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. *Obtain an application for admission.* The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.
2. *Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school.* These records must be forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, by an official of the school concerned. In addition, applicants who have been on active duty in the Armed Forces must also submit photostatic copies of their service separation papers.
3. *Decide which college and curriculum in the University he desires to enter.* To assist applicants in making this decision, this Division of the University offers Vocational and Educational Guidance Examinations which are followed by professional counseling. For new freshmen, these guidance examinations are a required activity of "Freshman Week." However, since the time available for counseling during Freshman Week is extremely limited, these examinations are now being offered several months in advance of Freshman Week. Appointments for these examinations may be made through the Office of Admissions and Records at the time an application blank is obtained. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of Freshman Week.
4. *Complete and return the application blank.*
5. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated, and if the application is approved, the applicant will be sent a permit to enter, an appointment for such placement, guidance, and motor fitness tests as may be necessary, an appointment for a physical examination, and information as to the date and place of

his college meeting and of registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiencies, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. *Report to Navy Pier for physical examination, college meeting, and tests listed in paragraph 5 above, on the dates specified in the notice which the applicant has received.*

7. *Register, pay tuition and fees, and start classes.*

ADMISSION REQUIREMENTS

FOR ADMISSION WITHOUT ENTRANCE EXAMINATIONS (by certificate)

High School Graduates

A. General University admission requirements:

1. Graduation from an accredited high school.
2. Age.—An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit, on petition, a student fifteen years of age who meets all other requirements for admission and who is to reside while attending the University with his parents or guardian or with someone selected by them.
3. Fifteen units of acceptable secondary school work distributed as follows:
 - a. A minimum of nine units of work in the academic fields (English, mathematics, sciences, foreign languages, history, and social studies) including:
 - (1) At least three units of English.
 - (2) At least two majors (including English) and one minor selected from the list of acceptable majors and minors on page 13. (*Exception:* The requirements of a second major is waived for applicants who rank in the upper half of their class scholastically on graduation.)
 - b. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards.

B. College Subject Requirements.—Applicants must present credit in the subjects required for admission to the college and curriculum of their choice (see Chart, page 12).

REQUIRED AND RECOMMENDED SUBJECTS FOR ADMISSION

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
<p style="text-align: center;">COLLEGE OF LIBERAL ARTS AND SCIENCES</p> <p>General Curriculum with majors in Bacteriology, Botany, Economics, English, French, German, Geography, Geology, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology.</p> <p>General Curriculum preparatory to Education, Journalism, Law.</p> <p>Teacher-training Curricula (No requiring Chemistry, Physics, or Mathematics).</p>	<p>English, 3 units. Language, 2 units. (See paragraph 2, page 13.)</p>	<p>Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.</p>
<p>General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology.</p> <p>Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine, Nursing.</p> <p>Teacher-training Curricula (Requiring Chemistry, Physics, and Mathematics).</p>	<p>English, 3 units. Language, 2 units. (See paragraph 2, page 13.) Algebra, 1 unit. Geometry, 1 unit.</p>	<p>Mathematics, 3 units, instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p>Special Curricula in Chemistry and Chemical Engineering.</p>	<p>English, 3 units. Language, 2 units. (See paragraph 2, page 13.) Algebra, 1½ units. Geometry, 1 unit. (See paragraph 3, page 14.)</p>	<p>Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.</p>
<p>Teacher-training Physical Education for Men.</p>	<p>English, 3 units. Written approval of the Director of the Physical Education Department.</p>	<p>Science, 3 units (including biology). Social Studies, 2 units. Health and safety education, and participation in school programs of physical education and athletics.</p>
<p>Teacher-training Physical Education for Women.</p>	<p>English, 3 units. Written approval of the Chairman of the Women's Division, Physical Education Department.</p>	<p>Science, 3 units (including biology). Social Studies, 2 units. Health and safety education, and participation in school programs of physical education and athletics.</p>

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
COLLEGE OF COMMERCE All Fields (Accountancy, Banking and Finance, Commerce and Law, Economics).	English, 3 units. Algebra, 1 unit. Geometry, 1 unit.	Advanced Algebra, $\frac{1}{2}$ unit. Science, 2 units (including 1 unit with laboratory).
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).	English, 3 units. Algebra, $1\frac{1}{2}$ units. Plane Geometry, 1 unit. Solid Geometry, $\frac{1}{2}$ unit. (See paragraph 3, page 14.)	Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.
Curricula in Architecture: Design Option (for B.S. degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering).	English, 3 units. Algebra, $1\frac{1}{2}$ units. Geometry, 1 unit. (See paragraph 3, page 14.)	Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economics and history).

Acceptable Majors and Minors

DEFINITIONS:

Unit.—A *unit* course of study in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

Major.—A *major* consists of three unit courses in one field.

Minor.—A *minor* consists of two unit courses in one field.

The required majors and minors defined above may be selected from the following five groups:

(1) English — In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

(2) Foreign Language — Three units in one language constitute a major. Two units in one language constitute a minor. The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, French, Spanish, Italian, Latin, and Classical Greek. Less than one unit in a language is not acceptable for admission.

(3) Mathematics — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. In Engineering, and in the chemistry and chemical engineering curricula of L.A.S., where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements may be admitted on condition that the deficiency be removed during their first year of residence.

(4) Science — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit from the above subjects.

(5) Social Studies — Including history, civics, economics, commercial or economic geography, and sociology. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit of history.

II. Transfer Students

A. All requirements listed in Item I, page 11.

B. Honorable dismissal from all institutions of higher learning previously attended, and a collegiate scholastic average of at least 3.00 ("C") in terms of the University of Illinois grading system. *Exceptions:*

1. An applicant whose record at some other institution comes within either of the following classifications may enter the University only on approval of the dean of the college concerned and under the conditions imposed by him:

a. An applicant on probation at, or dropped from, another institution for poor scholarship or for disciplinary reasons. (In the latter instance, he must also obtain the approval of the University Senate Committee on Student Discipline.)

b. A person whose collegiate scholastic average is less than 3.00 in terms of the University of Illinois grading system.

2. An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in Item I may be admitted if he presents at least 30 semester hours of credit in transfer with a 3.00 average and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

III. Non-Resident Applicants

Applicants who are not residents of the state of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in Item I, page 11, and further provided that:

- A. As high school graduates they ranked scholastically in the upper half of their class on graduation.
- B. As transfer students they present a collegiate scholastic average of at least 3.5 (mid-way between "C" and "B") in terms of the University of Illinois grading system.

IV. Special Scholastic Admission Requirements

- A. High school graduates who are residents of the state of Illinois and who rank in the fourth (lowest) quarter of their class scholastically on graduation, if otherwise qualified, will be admitted on scholastic probation.
- B. Applicants for the following special curricula must meet the scholastic minima indicated opposite each curriculum.

<i>Curriculum</i>	<i>Scholastic Requirements</i>
1. Pre-Medical	
a. High-School Graduates	Rank in upper half of graduating class.
b. Transfer students	3.5 collegiate average through the third semester of collegiate work. 3.75 collegiate average commencing with the fourth semester of college work.
2. Pre-Dental, Pre-Veterinary Medicine	
a. High School Graduates	Rank in upper half of graduating class.
b. Transfer students	Collegiate average of 3.5.
3. Chemistry, Chemical Engineering	
a. High School Graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 or collegiate average of 3.5 in chemistry subjects.
4. Engineering Physics	
a. High School Graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 and collegiate average of 3.5 in all college-level mathematics and physics.

ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations as outlined below: (Exception: This section does not apply to applicants who are deficient in the scholastic admission requirements outlined in Items III and IV, page 15. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.)

I. University of Illinois Entrance Examinations — Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

A. Graduates of Unaccredited High Schools:

1. Applicants who rank in the top twenty-five per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English Composition and Rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

2. Applicants who are graduates of unaccredited secondary schools and who rank below the top twenty-five per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and curricular admission requirements.

B. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English Composition and Rhetoric and additional entrance examinations for a total of at least four units of work in subjects to be designated by the University.

C. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.

D. Applicants who do not meet University admission requirements with respect to any one or more of the following:

Total units of credit
Total academic units
Majors and minors
Subjects required for
admission to the col-
lege of the applicant's
choice

} may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient

II. General Educational Development Tests — United States Armed Forces Institute General Educational Development Tests.—Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult non-veterans (non-veterans 21 years of age or older) may qualify for admission to the University by passing the USAFI General Educational Development Tests under the following conditions:

A. Applicants seeking admission to the College of Liberal Arts and Sciences, general curriculum, may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. *Exception:* Applicants desiring to enter the teacher-training physical education curriculum in the College of Liberal Arts and Sciences may qualify for admission irrespective of rank classifications.

B. Applicants seeking admission to the College of Commerce and Business Administration, the College of Engineering, or any curriculum in the College of Liberal Arts and Sciences for which mathematics is a prerequisite may qualify for admission by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.

FEES

TUITION—Illinois residents (except those holding scholarships) registering in nine hours or more pay a tuition fee of \$40.00
 Non-residents registering in nine hours or more pay a tuition fee of ... 80.00
 Students taking eight hours or less pay \$3 per hour if residents of Illinois, or \$6 per hour if non-residents.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in six hours or more pay as insurance for hospital and medical service a fee of 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—All students registering in nine hours or more pay a laboratory, library, and supply fee of 8.00
 Students taking less than this amount of instruction pay \$4 each semester.

STUDENT ACTIVITIES FEE—All students registering in six hours or more pay a student activities fee of 4.00

DEPOSITS—Each student must make a deposit of \$5 at the time of his first registration. Chargeable against this deposit are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory and other equipment, etc. Whenever the amount of the \$5 deposit falls below \$2.50, the student will be required immediately, by additional deposit, to bring the total up to \$5. Any balance in a deposit will be returned to the student in case he officially withdraws from the University.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment.

FEES FOR THE SUMMER SESSION

TUITION—Illinois residents (except those holding scholarships) registering in five hours or more pay a tuition fee of \$20.00
 Non-residents registering in five hours or more pay a tuition fee of 40.00
 Students taking four hours or less pay \$3 per hour if residents of Illinois, or \$6 per hour if non-residents.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in four hours or more pay as insurance for hospital and medical service a fee of 2.50

LABORATORY, LIBRARY, AND SUPPLY FEE—All students registering in five hours or more pay a laboratory, library, and supply fee of 4.00
Students taking less than this amount of instruction pay \$2 for the summer session.

STUDENT ACTIVITIES FEE—All students registering in four hours or more pay a student activities fee of 2.00

All fees listed above are due and payable in full when the student registers.

REFUNDS OF FEES

In case a student withdraws from a course or from the University¹ during the first ten days of instruction, the total amount of his fees for the work dropped will be refunded. After ten days and before the middle of the semester, a rebate of one-half the fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

MISCELLANEOUS FEES

SERVICE CHARGE FOR DEFERRED FEES—A service charge of ten per cent of the amount of fees deferred, but not to exceed \$3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded *except* that a minimum service charge of \$1 is retained by the University in all cases. The general deposit of \$5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

CHANGE FEE—For every change slip issued later than noon of the second Monday following registration the fee is \$1.00

TRANSCRIPT FEE—Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is50

LATE REGISTRATION FEE—Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

SPECIAL EXAMINATION FEE—For any special examination to remove a failure the fee is 5.00

LISTENER'S FEE—Persons not connected with the University who attend classes as listeners pay for each course 7.50

¹ Students leaving the University before the end of a semester or session should initiate withdrawal papers at the Office of the Dean of their college. Failure to do so will result in the student's being dropped at the end of the semester

Veterans' Registration Information

Veterans may qualify for admission to the Chicago Undergraduate Division under the regular entrance requirements listed on pages 10 to 17 or through satisfactory demonstration of ability to carry college work.

Honorable discharge papers and credentials showing special training courses completed while in the Armed Forces should accompany high school and college credentials at the time of application. These credentials should be sent to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, for evaluation.

PROCEDURE FOR REGISTRATION UNDER THE G.I. BILL

1. Obtain a Certificate of Eligibility from the Veterans Administration, 366 W. Adams St., Chicago. A copy of discharge papers must accompany this application.
2. Keep the Certificate until the day of registration for classes. It will not be accepted before that time.
3. Bring the form and \$5.00 for the general deposit to registration. Books and supplies will be furnished.

PREVIOUS TRAINING UNDER THE G.I. BILL

Those veterans previously registered at another school under the G.I. Bill should:

1. Obtain a notice of termination of training from the former school.
2. Obtain notice of admission to the Chicago Undergraduate Division.
3. Apply at once to the Veterans Administration, 366 W. Adams St., Chicago, for a supplemental Certificate.

PUBLIC LAW 16

Students receiving benefits of education under the Vocational Rehabilitation Act should be certain that there is an authorization on file for them at the University by the time they are to register.

TRANSFERS FROM URBANA OR GALESBURG

Students transferring to the Chicago Undergraduate Division from the Urbana campus are responsible for requesting the transfer of their Certificates or Letters to Navy Pier; they are *not* transferred with academic records. To request a transfer of Certificates or Letters, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration Bldg. (W), Urbana, Illinois. Those students formerly attending the Galesburg Division should also send a written request for transfer of records to the above address. All files are now in the Urbana office. Veterans who have attended either Urbana or Galesburg under P. L. 16 must also notify their Training Officer of their intention to transfer to the Chicago Undergraduate Division.

VETERANS WHO HAVE NOT OBTAINED AN AUTHORIZATION

Veterans who do not have an authorization for training from the Veterans Administration at the time of registration will be required to pay tuition and fees and to buy all necessary books and equipment. A refund will be made when the authorization is presented to the University. Information concerning education under the G.I. Bill or P. L. 16 is available from the University Veterans' Office, Room 15.

Division of Special Services for War Veterans

The University of Illinois Division of Special Services for War Veterans has established an office at the Chicago Undergraduate Division for the purpose of assisting the veteran in returning to civilian life, but it does not register students as on the Urbana campus. Instead, a counselor in this office assists the veteran in making educational adjustments and guides him in his search for the curriculum which will best satisfy his needs.

The veteran whose previous training has not fitted him for admission to the curriculum of his choice may, subject to the admission requirements of the University and provided the veteran has 26 or more credit hours, register as a Division of Special Services for War Veterans student, in one of the three colleges: Engineering, Commerce, or Liberal Arts and Sciences, taking such courses as will enable him to meet the requirements for admission to his chosen curriculum, and to transfer into it when he is adequately prepared to enter the field of his choice.

For veterans having 26 or more credit hours whose special needs cannot be satisfied by existing curricula, and who request a special program at the time of their first registration, the Counselor for the Division Special Services for War Veterans, provided this request is approved, will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran. This program shall be presented to those administering the program for final approval. All such programs will be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at the Chicago Undergraduate Division, the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service, may be transferred upon the basis of evaluation by the Examiner and Recorder.

The Office of the Veterans Counselor will help the veteran to secure those benefits offered him by the state and nation. For the convenience of the veteran student, the Illinois Veterans Commission and the Veterans Administration maintain service offices at the Chicago Undergraduate Division.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to the Division of Special Services for War Veterans, University of Illinois, Chicago Undergraduate Division, Chicago 11, Illinois.



UNIVERSITY of ILLINOIS



Student Welfare

THE UNIVERSITY'S INTEREST in the individual student extends beyond the classroom to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling, instruction in healthful living, and extracurricular activities, both social and cultural.

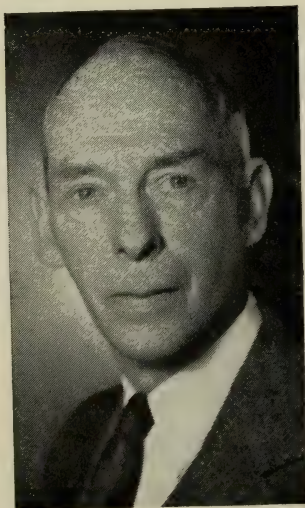
Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Counseling Bureau available to prospective students seeking help in planning their college careers. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester. At the beginning of the fall semester, a "Freshman Week" program is arranged by the Student Congress to introduce new students to extracurricular activities.

Counseling facilities of the offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Student Counseling Bureau are available to students at all times during their college work at the Chicago Undergraduate Division. Students are urged to discuss specific educational problems with their instructors. Members of the instructional staff hold weekly office hours for conferences with individual students.

Dean of Students

THE WELFARE OF THE STUDENT outside the classroom is the responsibility of the Dean of Students. He is charged with the direction, supervision, and coordination of the University agencies which are active in the guidance of students in extracurricular activities. The Dean of Students is available for individual consultation with students.

**Edwin A. Wolleson,
Dean of Students**



His principal assistants are the Dean of Men, the Dean of Women, the Director of University Health Service, and the Director of Physical Education.

As the University officer primarily interested in student affairs, the Dean of Students serves as secretary to the Faculty Committee on Student Affairs. Student activities of an extracurricular nature are supervised by the Faculty Committee on Student Affairs, composed of the Dean of Students, the Dean of Men, the Dean of Women, and three appointed faculty members from each of the three colleges.

Dean of Men

THE OFFICE OF THE DEAN OF MEN is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily.

As the financial advisor for student organizations and treasurer of the Student Organizations Fund, the Dean of Men takes an active part in student extracurricular affairs. He also serves as the advisor to Phi Eta Sigma, national scholastic honorary for first-year men students.

The Student Employment Division which assists needy students with contacts for part-time employment and the Hospital and Medical Service plan are under the supervision of the Dean of Men. Attendance records for both veteran and non-veteran students are maintained by the Office of the Dean of Men.



Warren O. Brown,
Dean of Men

Dean of Women

THE OFFICE OF THE DEAN OF WOMEN is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the advisor to women's organizations at the Chicago Undergraduate Division and as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women.

All student social events are coordinated and unified through her office in her capacity as chairman of the Administrative Council Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.



Ann Bromley
Dean of Women

SCHOLARSHIPS AND LOAN FUNDS

UNDERGRADUATE SCHOLARSHIPS that exempt the holder from tuition fees include: County Scholarships; General Assembly Scholarships; University Scholarships; and Military Scholarships. Particular attention is called to the William J. Cook Fund Scholarship. Applications should be initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

Loan funds are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualifications which must be met by applicants.

Detailed information regarding scholarships and loan funds may be obtained from the Office of the Dean of Students. For information as to Military Scholarships, see the Office of Admissions and Records.

STUDENT EMPLOYMENT

FOR STUDENTS who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Men maintains a list of part-time jobs available, both in University offices and in industry and business in the Chicago area. Applications for part-time positions should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

HOSPITAL AND MEDICAL SERVICE

A HOSPITAL AND MEDICAL SERVICE FEE of five dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital or to home, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, drugs, and dressings. (X-ray is excluded.) The Hospital and Medical Service plan is under the supervision of the Dean of Men.

Note: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee, may petition through the Office of the Dean of Men *during the first ten days of instruction*, for a refund of this fee.

SPEECH CLINIC

THE SPEECH CLINIC is maintained by the University to help students in correcting speech defects. Appointments are made through the Student Counseling Bureau, Room 303.

Health Service

THE UNIVERSITY maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff at the University Health Service, are required of all students prior to the time of their first registration and each year thereafter. Chest X-rays are required as part of the physical examination. Immunizing inoculations for small pox, tetanus, diphtheria, influenza, and typhoid fever are available to students free of charge.

The staff of five physicians instruct classes in hygiene and sanitation as follows:

HYGIENE 102. PERSONAL AND ENVIRONMENTAL HYGIENE.—Required of all undergraduate women during their first year of residence. I, II. (2 hours).

HYGIENE 105. PERSONAL AND ENVIRONMENTAL HYGIENE.—Required of all undergraduate men during their first year of residence. I, II. (2 hours).

As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations. It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5:30 p.m. daily and mornings on Saturdays and during vacation periods.

Next — for flu shots





Interpreting tests in vocational counseling

Student Counseling Bureau

SERVICES OF THE STUDENT COUNSELING BUREAU are available to assist students in successfully meeting University standards of attainment. The Bureau provides specialized services by trained counselors for the purpose of helping all students and prospective students to understand, choose, and best use those facilities of the University which will meet their individual needs.

Early and continued use of Bureau services will aid in arriving at a thorough understanding of one's abilities, interests, educational background, and personal situation as these relate to making plans and carrying through activities leading to success both in and out of school.

Freshman Guidance Examinations administered by the Bureau are taken by all first-year students prior to registration in the University. Scores on these tests are important indices to educational and vocational aptitudes, interests and abilities. A counselor will gladly assist in evaluating these, and where desirable other, special evidences of assets and needs.

Group-counseling and practice on study and reading skills at the college level is available through participation in non-credit "classes" offered by the Bureau. This program includes laboratory practice in improving study habits, note-taking, preparation for examinations, facility in concentrating and remembering, and increasing speed and understanding in reading. Students may register for this program at the Student Counseling Bureau.

Students wishing to talk over any educational, vocational, or other personal problem may make an appointment at the Reception Office of the Student Counseling Bureau. This is located at Room 303 on the third floor south, near the east end of the Pier.

University Library

THE LIBRARY OF THE CHICAGO UNDERGRADUATE DIVISION is outstanding among the newer college libraries of the nation. Although only three years old, it contains nearly 35,000 volumes, all of which have been carefully chosen with the Institution's undergraduate curricula in mind, as well as the general and recreational interests of students and faculty. Orders for new books are being placed constantly, so that it is expected that the Library will contain 60,000 selected volumes within the next few years.

While no attempt will ever be made to duplicate scholarly research facilities already available in the city, strong emphasis is placed on general reference and readers' advisory service, with close liaison maintained with the teaching program and student activities. An exceptional collection of general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories (3,000 volumes) has been assembled. A complete dictionary catalog is provided, and 27 periodical indexing services are available. The subscription list includes nearly 500 magazines and journals. Twenty-year back files of 160 particularly useful periodicals have already been bound for permanent reference use and are available on open shelves. An extensive vertical-file pamphlet collection and excellent microfilm reading facilities are also provided.

The library has two service areas. The open-shelf Main Reading Room is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities, in addition to well-lighted study space for 800 students at 100 large tables. The Reserve Book Station, located near the street car line, makes assigned reading materials conveniently available. The library staff of 23 includes 9 trained librarians, with academic rank, and 14 full-time clerks.

Library hours are 8:30 a.m. to 5 p.m., Monday through Friday, and 9 a.m. to 12 noon on Saturday.

Students take advantage of reference service





A mid-afternoon snack

Food Service

THE UNIVERSITY OPERATES non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the Pier. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the Pier, adjacent to the reception lounge. In addition, a dining room at the east end of the Pier offers cafeteria-style service to members of the faculty and staff.



Down the
cafeteria



Stop for supplies at Bookstore

University Bookstore

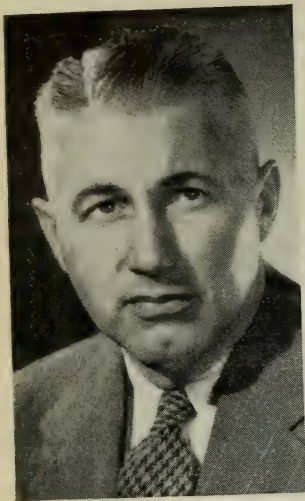
THE UNIVERSITY BOOKSTORE is operated on a cooperative basis to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

Students and faculty members may participate in a "share-the-profit" plan at the end of each year if the store realizes a profit for the operating year.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 5 p.m. During the registration period, the Bookstore is open from 8 a.m. to 6 p.m.

Window shopping at the Bookstore





John O. Jones,
Director of Athletics

Athletics

INTERCOLLEGIATE COMPETITION in eight sports—basketball, cross-country, wrestling, gymnastics, swimming, baseball, golf, and tennis—is on the varsity program for the Chicago Undergraduate Division. In accordance with a special ruling, freshmen are allowed to participate in varsity sports without this participation affecting the three-year eligibility rule. All students, however, must meet Big Nine conference eligibility standards.

A feature of the athletic program at the Navy Pier branch is the extensive intramural program in which students, with the exception of those on varsity squads, can elect to take part in boxing, wrestling, badminton, table-tennis, volleyball, basketball, swimming, gymnastics, handball, weight lifting, tennis, track, and softball. The intramural program, as well as the intercollegiate, is under the supervision of a sub-committee of student and faculty representatives. Both programs are financed through funds from student activities fees and from appropriations from the downstate campus.

A staff of 12 coaches directs the Navy Pier athletic activities. Letter awards are made to varsity athletes who meet the participation requirements, to sophomore managers, and sophomore cheerleaders.

In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, and a basic physical fitness program.

The intercollegiate and intramural program and physical education classes for men are centered in the Chicago Undergraduate Division Gymnasium, adjacent to the west end of Navy Pier. The gymnasium floor is the largest in the state, with space for eight full-size basketball courts.

Women are offered instruction in elementary, intermediate, and advanced rhythms, individual gymnastics, basketball, volleyball, softball, badminton, tumbling and apparatus stunts, fundamentals of motor fitness, archery, and folk and square dance. Women's physical education classes are held in the Auditorium at the east end of Navy Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

Physical Education

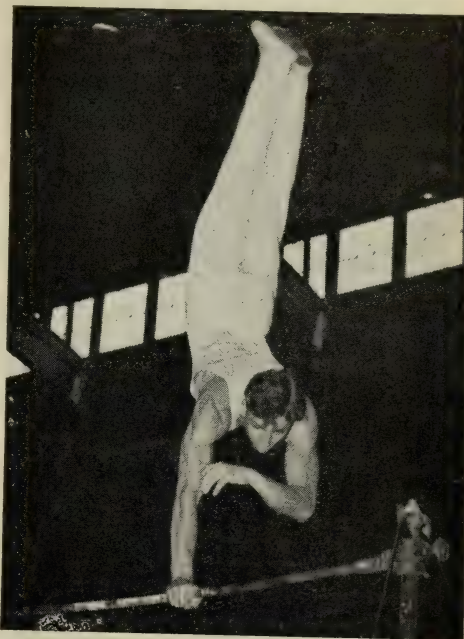
WOMEN STUDENTS entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men students entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempted.

Veterans are encouraged to utilize the physical education facilities, but additional credits will not be granted except as elective credit in the College of Commerce.

Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses such as adapted sports and prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week (for 1 hour) or two times a week (for 1½ hours). All general courses in physical education carry one hour of credit.

The first year of work in the teacher-training curriculum in physical education for men and women is offered at the Chicago Undergraduate Division.

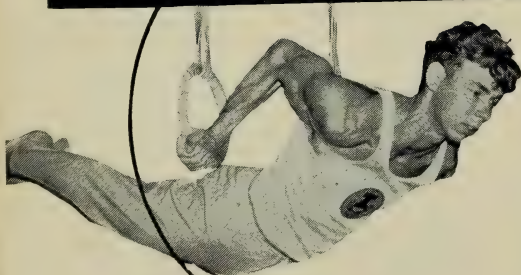


Archery
Gymnastics
Tennis



Student extracurricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. Forty student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body.

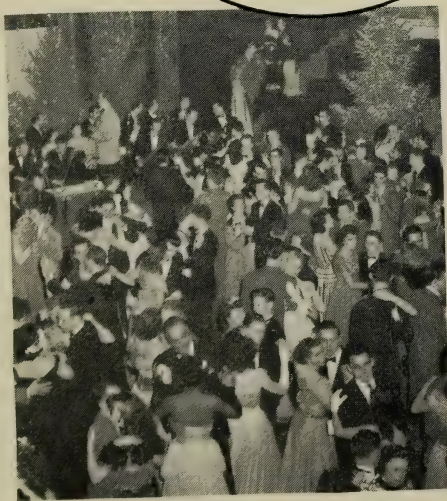
EXTRACURRICULAR ACTIVITIES

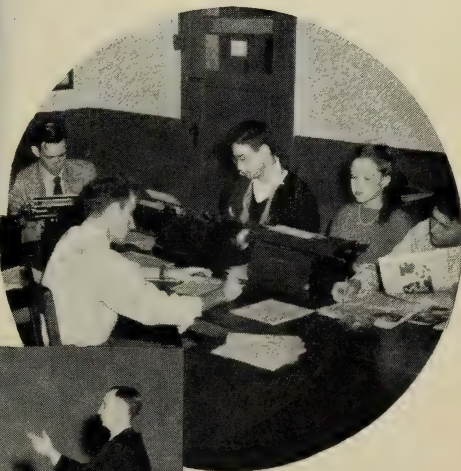


The agencies engaged in the field of extracurricular activities are the Faculty Committee on Student Affairs, the Student Congress, and the Administrative Committees.

The Student Congress, the student self-governing organization, is comprised of four officers and fourteen representatives elected by the student body.

Seven Administrative Committees, each covering one phase of student activities, provide liaison between the Faculty Committee and the Student Congress. Each committee has a chairman elected by and from the Faculty Committee and two representatives from the Congress as members.





Courses Required of All Students

THE FOLLOWING COURSE REQUIREMENTS must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be begun in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Hygiene — One semester. Credit may be obtained by a proficiency examination. (Veteran students who have completed basic training in the Army, Navy, Marine Corps, or Coast Guard receive credit for hygiene). Transfer students having sophomore standing are exempt from hygiene.

2. Physical Education — Four semesters. Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. (Veteran students who have completed basic training while in the service are exempted.)

Physical education may be deferred only by written request through the Physical Education Department which will make recommendation to the dean of the student's college.

3. Rhetoric — Two semesters (Rhetoric 101 and 102). All students entering the University as freshmen direct from secondary school are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

GRADE-POINT AVERAGE

In computing the grade-point average, weighted values are given to the grades as follows: A-5 grade points; B-4; C-3; D-2; E(failure)-1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus if you earn 3 hours of A, 6 of B, 3 of C, and 2 of D, the computation of your grade point average is as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	52
	<hr/>		<hr/>	
	14		52	$\frac{52}{14} = 3.71$

Your grade point average is 3.71.

College of Commerce and Business Administration

THROUGH KNOWLEDGE of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for lowerclassmen. Though the factual contents of many of the courses are directly useful in specific vocations—accounting, banking, selling, teaching—students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible, to avoid the narrowing effects of early specialization.

The program of the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

All of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University, provided proper prerequisites are met.

Summary of Requirements for Graduation

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must (1) meet the general University requirements with respect to registration, residence, scholarship, and fees;



Robert P. Hackett, Associate Dean,
Commerce and Business Administration

(2) have a minimum of 130 semester hours of credit, including credit for the required work in rhetoric, hygiene, physical education, and military science. and including a minimum of 60 hours in courses given in the College of Commerce; and (3) complete the requirements of one of the fields of concentration (accountancy, banking and finance, commerce and law, commercial teaching, economics, industrial administration, management, marketing, public affairs, or secretarial training) with an average grade of not less than "C" in all courses counted toward graduation, whether taken at the University of Illinois or elsewhere.

Electives

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the upper division. They include management, marketing, history, philosophy, political science, psychology, and sociology. Any advice desired on these electives may be obtained at the Office of the Dean or from the advisor at the time of registration.

Commerce and Law

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business or corporation law. The first two years are the same as the program for the Lower Division shown on the following page. The third year includes requirements of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 100 hours in the College of Commerce and Business Administration and 30 hours in the College of Law, including all required courses, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law the law degree will be granted.

Commercial Teaching

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. This program is based primarily on the Lower Division

program shown below with adjustments not only to comply with the state laws but to prepare the student in the best way possible for a teaching career. Students interested in this program should consult with the Dean of the College.

Pre-Journalism

Students wishing to enter the School of Journalism may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The two-year program for this purpose is the same as that shown below.

PROGRAM FOR THE LOWER DIVISION¹

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 101 or 102—Principles of Accounting	3 or 2	Accy. 105—Accounting Procedure . . .	3
Econ. 101—Economic History of U.S.	3	Econ. 100—Introduction to Business .	3
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Science and/or College Algebra ² . . .	5-8	Science and/or College Algebra ² . . .	3-5
Physical Education	1	Hygiene 102 or 105	2
Electives	1-4	Physical Education	1
Total	15-18	Total	15-17

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 106—Cost Accounting	3	Accy. 108—Intermediate Accounting .	3
Econ. 102—Principles of Economics .	3	Econ. 103—Principles of Economics .	3
Language or Literature ³	4	Language or Literature ³	4
Rhet. 151—Business Letter Writing .	2	Econ. 170—Elementary Statistics . . .	3
Speech 101—Effective Speaking . . .	3	Physical Education	1
Physical Education	1	Electives	1-4
Electives	0-2		
Total	16-18	Total	15-18

¹ The Lower Division program applies to all fields except commercial teaching. For the requirements in that field consult with the Dean of the College.

² Mathematics and Science — All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.

³ Language — Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college.



Frederick W. Trezise
Associate Dean, Engineering Sciences

College of Engineering

TO PREPARE MEN FOR PROFESSIONAL WORK in engineering and for responsible positions of a technical and semi-technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms

is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. While each student pursues a curriculum of his own choice according to the field of his particular interest, all students must take certain courses. Basic courses in mathematics, chemistry, physics, rhetoric, and general engineering drawing are required in the first two years.

At the Chicago Undergraduate Division the first two years of courses in the following fields are offered: aeronautical engineering; ceramic engineering; civil engineering; electrical engineering; engineering physics; general engineering; mechanical engineering; metallurgical engineering; and mining engineering. Those few advanced courses which are not available here are properly noted.

Instruction in all courses is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois in his third year.

Summary of Requirements for Graduation

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula. Each curriculum requires a minimum of 136 semester hours of credit, not counting the required work in military science and physical education.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work, consisting of 30 to 36 semester hours, acceptable to the faculty of this college, providing plans have been made looking toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

Electives and Options

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences, the College of Commerce, and the College of Engineering. **Technical electives** include practically all courses in the College of Engineering not required in the student's curriculum, except all elementary work in drawing.

In all curricula, no less than one year of college work in modern language (English, French, German, or Spanish) may be substituted for the approved elective to the extent of the hours specified in the particular curriculum.

Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by **curriculum options**, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

Common Program for Freshman

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on the following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 102 or 103—General Chemistry	3 or 4	Chem. 104—Chemistry of the Metallic Elements	4
G.E.D. 101 or 104—Elements of Drawing	4	G.E.D. 102—Descriptive Geometry ..	4
Math. 112—College Algebra	3	Math. 122—Analytic Geometry	4
Math. 114 or 115—Trigonometry.....	2	Rhet. 102—Rhetoric and Composition	3
Rhet. 101—Rhetoric and Composition	3	Hygiene 102 or 105	2
Physical Education	1	Physical Education	1
<i>Total</i>	16-17	<i>Total</i>	18

Curriculum in Aeronautical Engineering

First Year

Common Program for Freshmen (page 39).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 103—Aircraft Drafting and Lofting	3	Math. 142—Integral Calculus.....	3
Math. 132—Differential Calculus	5	Physics 104—General Physics.....	5
M.E. 182—Manufacturing Processes..	3	Speech 101—Principles of Effective Speaking or Non-Technical Elective	3
Physics 103—General Physics	5	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Physical Education	1	Physical Education ..	1
<i>Total</i>	17	<i>Total</i>	17

Curriculum in Ceramic Engineering

First Year¹

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Cer. E. 101—Introduction to Ceramic Engineering ²	3	Cer. E. 102—Ceramic Processes and Equipment ²	3
Chem. 123—Quantitative Analysis for Engineers ³	5	Geol. 130—General Mineralogy ²	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	17	Physical Education ..	1
		<i>Total</i>	17

Curriculum in Chemical Engineering

This curriculum is administered by the College of Liberal Arts and Sciences.

See pages 50 and 51

Curriculum in Civil Engineering

First Year⁴

Common Program for Freshmen (page 39).

¹Common Program for Freshmen (page 39), except that Chem. 105 and Math. 117-127 are substituted for Chem. 104 and Math. 112, 114, and 122.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

³Not offered at the Chicago Undergraduate Division; substitute Chem. 122—Elementary Quantitative Analysis.

⁴C. E. 101 and 102 are required courses which will be taught only at the summer surveying camp following the freshman year.

Curriculum in Civil Engineering (Continued)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 103—Route Surveying ¹	3	C.E. 135—Plain Concrete	2
C.E. 160—Building Construction	3	Geol. 150—Engineering Geology ² ...	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
		Econ. 108—Elements of Economics, or Speech 101—Principles of Effective Speaking	3
		Physical Education ..	1
<i>Total</i>	17	<i>Total</i>	19

Curriculum in Electrical Engineering First Year

Common Program for Freshmen (page 39).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
E.E. 120—Illuminating Engineering and Secondary Power Distribution .3		E.E. 126—Introduction to Electro- dynamics	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 184—Metal Processing; or Speech 101—Principles of Effective Speaking ³	3	Speech 101—Principles of Effective Speaking; or M.E. 184—Metal Processing ³	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education ..	1	T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
		Physical Education ..	1
<i>Total</i>	17	<i>Total</i>	19

Curriculum in Engineering Physics

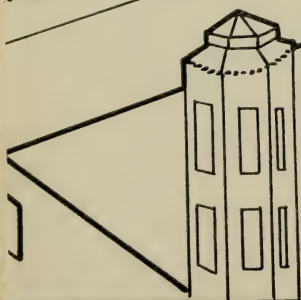
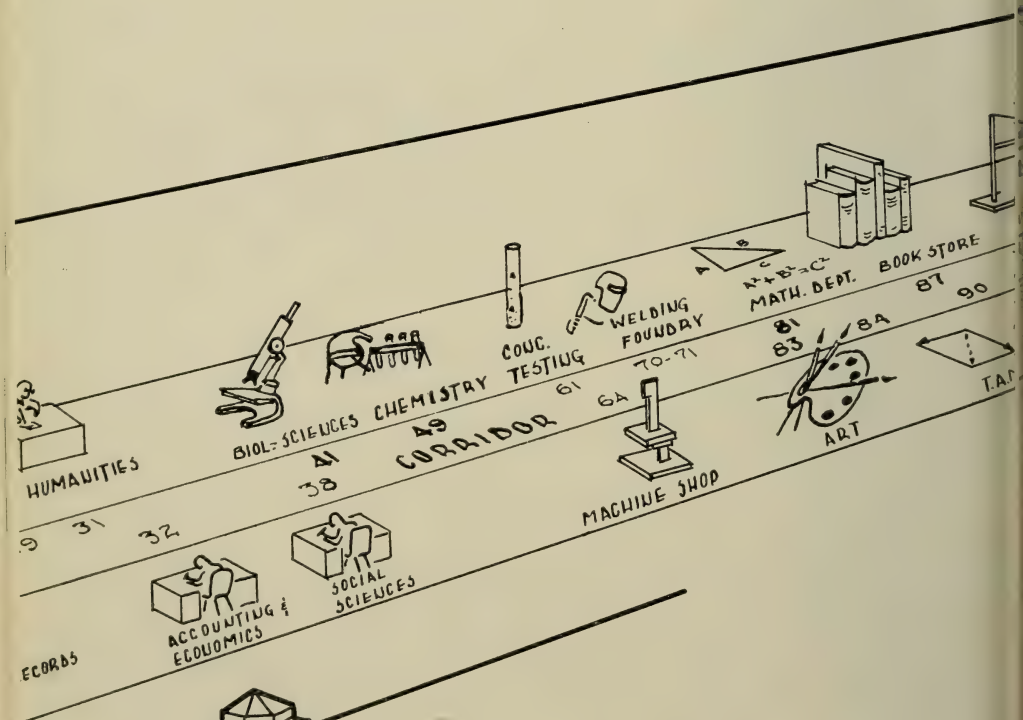
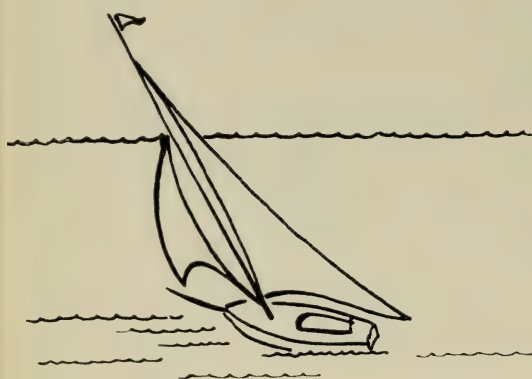
The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

¹Offered during the fall semester only.

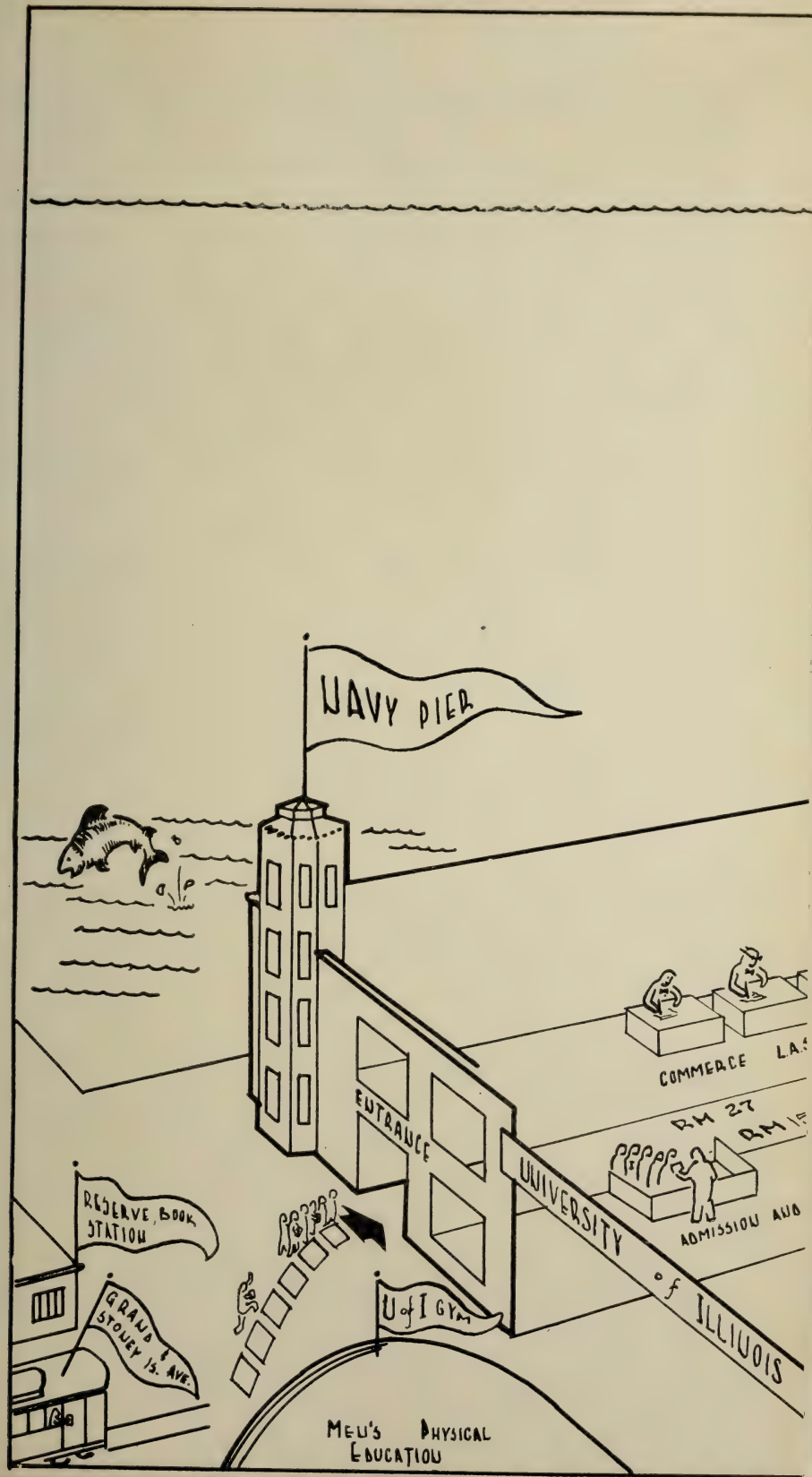
²Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geol. 150 and approved non-technical electives, 5 hours.

³Students intending to select the option in Illumination take Speech 101 the first semester and an approved elective the second semester.



3RD. FL. LEVEL

- EXECUTIVE DEAN
- BUSINESS OFFICE
- VET'S ADM. OFFICE
- STUDENT ACTIVITIES



Curriculum in Engineering Physics (Continued)

First Year

Common Program for freshmen (page 39) except that substitution of Chem. 106 for Chem. 104 is advised.

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective.....	4	German or Approved Elective.....	4
Math. 132—Differential Calculus.....	5	Math. 142—Integral Calculus.....	3
Phys. 103—General Physics.....	5	Phys. 104—General Physics.....	5
Physical Education	1	T.A.M. 150—Analytical Mech. (Statics)	2
Approved Elective	3	Physical Education	1
		Approved Elective	3
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Total.....	18	Total.....	18

Curriculum in General Engineering

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporation finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations.

First Year

Common Program for Freshmen (page 39).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 108—Elements of Economics...	3	Speech 101—Principles of Effective Speaking	3
Math. 132—Differential Calculus.....	5	Math. 142—Integral Calculus.....	3
M.E. 183—Materials Casting; or C.E. 115—General Surveying ²	3	Phys. 104—General Physics.....	5
Phys. 103—General Physics.....	5	T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1	C.E. 115—General Surveying ² ; or M.E. 183—Materials Casting	3
		Physical Education	1
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Total.....	17	Total.....	17

¹ The election of Chem. 110, 124, and 234 is advised. Students wishing to emphasize geophysics should elect most or all of the technical options in geology. Five hours must be approved non-technical electives.
² C.E. 115 not given at the Chicago Undergraduate Division; must be taken at Urbana.

Curriculum in Mechanical Engineering

First Year

Common Program for Freshmen (page 39).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 171—Mechanism	2	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 183—Materials Casting; or M.E. 184—Metal Processing	3	M.E. 184—Metal Processing; or M.E. 183—Materials Casting	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	Physical Education	1
Total	16	Total	17

Curriculum in Metallurgical Engineering

First Year

Common Program for Freshmen (page 39) except that Chem. 105 and G.E.D. 106 are substituted for Chem. 104 and G.E.D. 101.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 123—Quantitative Analysis for Engineers ¹	5	Math. 142—Integral Calculus	3
Math. 132—Differential Calculus	5	Physics 104—General Physics	5
Physics 103—General Physics	5	Met. E. 150—Introduction to Metallurgy ²	3
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
Total	16	Physical Education	1
		Approved Elective ³	3
		Total	17

Curriculum in Mining Engineering

First Year

Common Program for Freshmen (page 39).

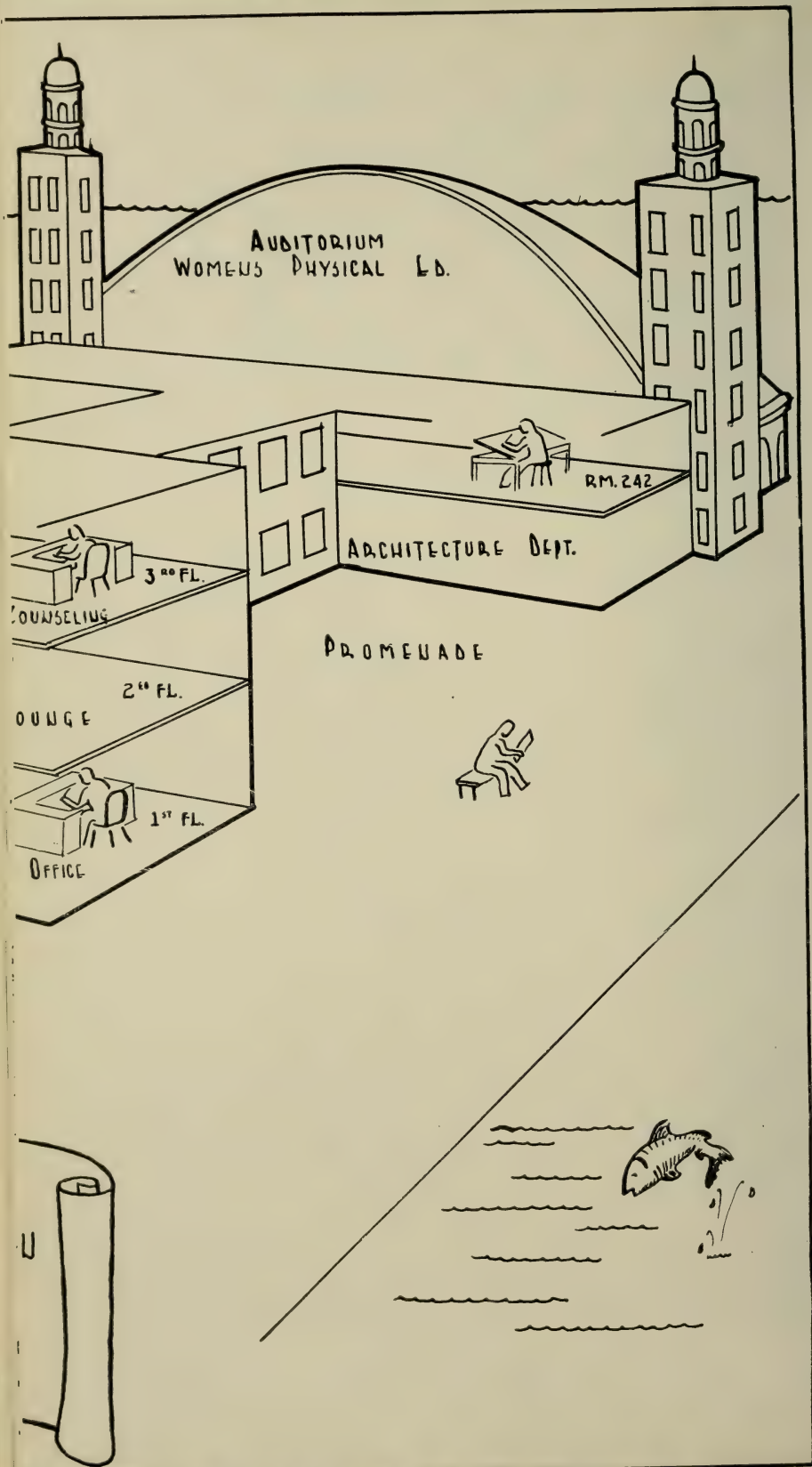
Second Year

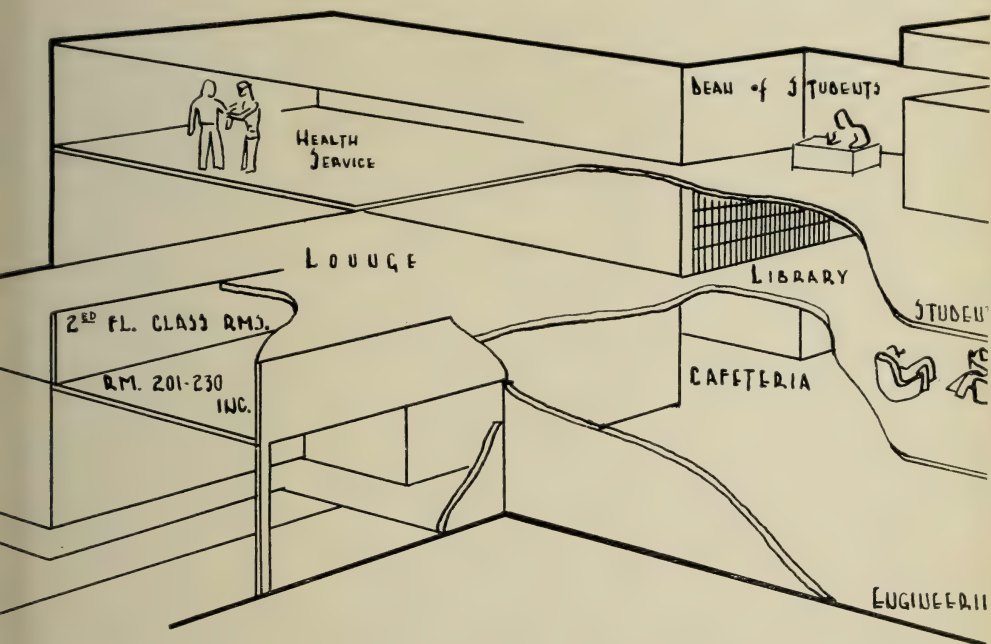
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 150—Geology for Engineers	3	Geol. 130—General Mineralogy ²	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
Min. E. 151—Elements of Mining ²	4	Min. E. 152—Fuels ²	3
Physics 103—General Physics	5	Physics 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
Total	18	Physical Education	1
		Total	17

¹Not offered at the Chicago Undergraduate Division; substitute Chem. 122—Elementary Qualitative analysis.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

³Eight hours of approved foreign language (French, Spanish, German, or Russian) may be substituted for 8 hours of approved electives.





UNIVERSITY of ILLINOIS
CHICAGO UNDERGRADUATE DIVISION
NAVY PIER



ARCHITECTURE

(Offered under the College of Engineering)

THE BUSINESS OF THE ARCHITECT is to conceive, design, and superintend the construction of buildings of any character, from the smallest to the largest, including homes, churches, schools, hospitals, hotels, factories, office buildings, etc. While architecture is in a sense a Fine Art, the architect must understand not only the principles of design but also the procedure of construction.

Since the practice of architecture is so diversified that no one can encompass it in all its details, some degree of specialization is necessary. In order to train future architects, two options are offered: general architecture and architectural engineering. A general understanding of the profession of architecture from the standpoint of design, safety, and economy, and of the architect's duties, is emphasized in both options. The first year of work is identical in both; a field of specialization is selected in the second year.

The general architecture option places the major emphasis on architectural design and includes a substantial program in architectural engineering. While the aesthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The architectural engineering option offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. This option affords a relatively wide range of elective courses in the social sciences, business engineering, and language and literature. It also provides sufficient training for independent practice as an architectural engineer.

Students at the Chicago Undergraduate Division are eligible to compete for several prizes and scholarships offered annually through the Beaux-Arts Institute of Design. The Beaux-Arts Institute of Design sponsors nation-wide competitions among qualified students of certain American schools, including the University of Illinois.

New five-year curriculum. The present four-year curriculum in architecture and architectural engineering will be expanded to a new five-year curriculum in September, 1949. Students entering as freshmen in September, 1949, will follow the five-year curriculum. Students who entered prior to that date or who transfer with advanced standing will continue in the four-year curriculum. Both curricula are outlined on the following pages.

Electives

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The

following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131, Mathematics 111, 112, 114, 115, 122, Botany 100, 101, Geography 101, Geology 101, Biology 101.

Four-Year Curriculum in Architecture

Students who entered prior to September, 1949, follow the four-year curriculum outlined below.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 131—Architectural Design3		Arch. 132—Architectural Design3	
Art 181—Freehand Drawing2		Art 182—Freehand Drawing2	
G.E.D. 107—Architectural Projections2		G.E.D. 108—Architectural Projections2	
Rhet. 101—Rhetoric and Composition 3		Rhet. 102—Rhetoric and Composition 3	
Math. 112—College Algebra3		Math. 122—Analytic Geometry4	
Math. 114—Trigonometry2		Hygiene 102 or 1052	
Physical Education1		Physical Education1	
<i>Total</i>16		<i>Total</i>17	

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 113—History of Architecture ..2		Arch. 114—History of Architecture ..2	
Arch. 133—Architectural Design3		Arch. 134—Architectural Design3	
Arch. 143—Materials and Methods of Construction3		Arch. 144—Materials and Methods of Construction3	
Art 183—Freehand Drawing2		Art 184—Freehand Drawing2	
Phys. 101—General Physics5		Phys. 102—General Physics5	
T.A.M. 171—Elements of Mechanics .3		T.A.M. 172—Strength of Materials ..3	
Physical Education1		Physical Education1	
<i>Total</i>19		<i>Total</i>19	

Four-Year Curriculum in Architectural Engineering

First Year

Common Program for Freshmen listed above.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 113—History of Architecture ..2		Arch. 114—History of Architecture ..2	
Arch. 133—Architectural Design3		Arch. 134—Architectural Design3	
Art 183—Freehand Drawing2		Art 184—Freehand Drawing2	
Math. 132—Differential Calculus5		Math. 142—Integral Calculus3	
Phys. 101—General Physics5		Phys. 102—General Physics5	
Physical Education1		T.A.M. 150—Analytical Mechanics (Statics)2	
		Physical Education1	
<i>Total</i>18		<i>Total</i>18	

Five-Year Curriculum in Architecture

Students entering as freshmen in September, 1949, follow the five-year curriculum in architecture and architectural engineering as outlined below.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 107—Architectural Projections	2	G.E.D. 108—Architectural Projections	2
Art 181—Freehand Drawing	2	Art 182—Freehand Drawing	2
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Math. 117—Combined Freshman		Math. 127—Combined Freshman	
Mathematics	5	Mathematics	4
Hygiene 102 or 105	2	Arch. 101—Introduction to	
Physical Education	1	Architecture	3
		Physical Education	1
Total	15	Total	15

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 131—Architectural Design	3	Arch. 132—Architectural Design	3
Art 183—Freehand Drawing	2	Art 184—Freehand Drawing	2
Arch. 143—Materials and Methods of		Arch. 144—Materials and Methods of	
Construction	2	Construction	2
Phys. 101—General Physics	5	Arch. 113—History of Architecture	2
Elective	3	T.A.M. 171—Elementary Mechanics	3
Physical Education	1	Elective	3
		Physical Education	1
Total	16	Total	16

Five-Year Curriculum in Architectural Engineering

First Year

Common Program for Freshmen (Page 46)

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Arch. 131—Architectural Design	3	Arch. 132—Architectural Design	3
Art 183—Freehand Drawing	2	Art 184—Freehand Drawing	2
Arch. 143—Materials and Methods of		Arch. 184—Materials and Methods of	
Construction	2	Construction	2
Phys. 101—General Physics	5	Arch. 113—History of Architecture	2
Math. 137—Differential Calculus	3	Math. 147—Integral Calculus	3
Physical Education	1	T.A.M. 150—Analytical Mechanics	2
		Physical Education	1
Total	16	Total	15

College of Liberal Arts and Sciences

THE COLLEGE OF LIBERAL ARTS AND SCIENCES at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years or commonly to change his vocational objective without additional time. Such a change after the beginning of the junior year usually cannot be made without loss of time.

It is assumed that upon completion of the two-years' work at the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, pre-medicine, pre-dentistry, pre-nursing, teacher-training, pre-law, pre-veterinary medicine, and pre-journalism. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

GENERAL CURRICULUM

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in a field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of advisers, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 48 and 49 in their first four semesters in the University.



Harold W. Bailey, Associate Dean
Liberal Arts and Sciences

Summary of Requirements for Graduation

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Hygiene—Hygiene 102 or 105.
Physical Education—4 semesters.
Rhetoric—Rhet. 101 and 102 (If C or D in Rhet. 102, student must pass qualifying examination or take Rhet. 200).
Foreign Language—Equivalent of two years in same language.
U.S. History—One unit of American History or History 151 and 152.
Mathematics—One unit of Algebra and one unit of Plane Geometry or Math. 101 and Math. 102.
Biological Sciences — 8 hours.
Physical Sciences — 8 hours.
Humanities — 8 hours.
Social Sciences — 8 hours.

Major—20 approved hours in one department.
Minor(s)—20 approved hours in one or two departments.
Advanced hours—30 hours of credit in courses not open to freshmen and sophomores.
Residence—Either first 88 hours uninterrupted, or last 30 hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the last 30 hours must be taken at Urbana.
Average—3.0 (C) minimum average.
Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of D.

REQUIRED SUBJECTS

A. Foreign Language. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed.

1. Foreign Language.—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

B. Group Requirements — To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

I. For students who entered college prior to September 1, 1946:

1. *Liberal Arts*.—A total of 15 hours chosen from at least three of the following subjects, including one course in English or foreign literature, or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work, or its equivalent), economics, history, philosophy, political science, and sociology.

B. Group Requirements (Continued) —

2. *Sciences*.—A total of 15 hours chosen from at least three of the following subjects, including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, biology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.

I. For students who entered college after September 1, 1946:

1. *Basic Knowledge*.—One unit of American history or Hist. 151 and 152. One unit of algebra and one unit of plane geometry or Math. 101 and 102.
2. *General Education*.—An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities; (b) biological science; (c) physical science; (d) social science.

ELECTIVES

Liberal Arts and Sciences.—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.

Other Colleges.—Electives totaling as much as but not more than 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list approved by the faculty:

Accountancy.—A total of 6 hours (not including more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics.—A total of 6 hours.

Architecture.—A total of 15 hours.

Art.—A total of 15 hours.

Business Law.—A total of 6 hours.

Business Organization and Operation.—A total of 6 hours. Typewriting and shorthand may not be counted for credit.

Economics.—All courses.

Education.—A total of 20 hours.

Engineering.—A total of 10 hours.

Forestry.—A total of 3 hours.

Home Economics.—All courses.

Horticulture.—A total of 6 hours.

Hygiene.—Hygiene 102 or 105 (2 hours).

Journalism.—A total of 10 hours.

Landscape Architecture.—A total of 7 hours.

Law.—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken with the advice of the Dean of the College of Law, and provided further that if any such student desires to take more than 6 hours of law work he must also register in the College of Law.

Library Science.—A total of 10 hours.

Military Science.—A total of 8 hours in advanced courses.

Music.—A total of 15 hours approved by the Director of the School.

Physics.—All courses.

Chemistry and Chemical Engineering

THE MINIMUM LANGUAGE requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 117, and who do not have two units of high school credit in French or German. Both curricula lead to the degree of Bachelor of Science in Chemical Engineering, but those who follow the five-year curriculum will find it possible, by the proper choice of electives, to obtain a Bachelor of Arts or Bachelor of Science degree at the end of four years.

Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing.

CURRICULUM IN CHEMISTRY

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5	Chem. 108—General Chemistry and Qualitative Analysis	5
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
German or French	4	German or French	4
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	—	Hygiene 102 or 105	2
		Physical Education	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 122—Quantitative Analysis	5	Chem. 234—Organic Chemistry ⁴	5
Math. 137—Calculus	3	Math. 147—Calculus	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	—	Physical Education	—
Electives ³	3	Electives ³	2-5
<i>Total</i>	16	<i>Total</i>	15-18

¹All students with entrance credit in chemistry are required to take a proficiency examination before registering for Chem. 107. Those who do not show the necessary proficiency will be placed in Chem. 101 or 102, after which they will take Chem. 106 and 119. For students without entrance credit in chemistry, the required sequence is Chem. 101, 106, and 119.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 11- (or 115), 122, 132, and 142.

³Suggested courses for electives are: Zool. 101, 107, 132; Biology 101, 131, 132; Bot. 100, 101 Engl. 121, 122; Geol. 130, 150; Hist. 151, 152; Bact. 104, 105; German or French. Of the total elective for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute course in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

⁴Not given at Chicago Undergraduate Division.

FOUR-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5	Chem. 108—General Chemistry and Qualitative Analysis	5
Math. 117—Freshman Mathematics ² ..	5	Math. 127—Freshman Mathematics ² ..	4
German, French, or Russian	4	German, French, or Russian	4
Rhet. 101—Rhetoric and Composition ..	3	Rhet. 102—Rhetoric and Composition ..	3
Physical Education	3	Hygiene 102 or 105	2
		Physical Education	2
<i>Total</i>	17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 122—Quantitative Analysis ...	5	Chem. 240—Physical Chemistry ³ ...	3
Math. 137—Calculus	3	Chem. 241—Physical Chemistry Lab. ³ ..	1
Phys. 103—General Physics	5	Math. 147—Calculus	3
G.E.D. 106—Elements of Drawing ...	3	Phys. 104—General Physics	5
Physical Education	3	Ch.E. 261—Stoichiometry ³	3
		T.A.M. 150—Analyt. Mechanics (Statics)	2
		Physical Education	2
<i>Total</i>	16	<i>Total</i>	17

OPTIONAL FIVE-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 or 102—General Chemistry ⁴	5 or 3	Chem. 106—Inorganic Chemistry ...	5
Math. 117—Freshman Mathematics ² ..	5	Math. 127—Freshman Mathematics ² ..	4
Rhet. 101—Rhetoric and Composition ..	3	German, French, or Russian	4
German, French, or Russian	4	Rhet. 102—Rhetoric and Composition ..	3
Physical Education	3	Hygiene 102 or 105	2
		Physical Education	2
<i>Total</i>	15-17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 110—Qualitative Analysis ...	5	Chem. 122—Quantitative Analysis ...	5
Math. 137—Calculus	3	Math. 147—Calculus	3
German, French, or Russian	4	Phys. 104—General Physics	5
Phys. 103—General Physics	5	German, French, or Russian	4
Physical Education	3	Physical Education	2
<i>Total</i>	17	<i>Total</i>	17

¹Students who do not qualify for Chem. 107 automatically go into the five-year curriculum.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Not given at Chicago Undergraduate Division.

⁴Students who qualify for Chem. 107 should take the Chem. 107, 108, 122, 240 sequence rather than Chem. 101, 106, 110, 122 and thus have five additional hours of advanced electives.

Pre-Medical Curriculum

THIS CURRICULUM, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

Pre-medical students must maintain a 3.5 average during the first two semesters in the curriculum. By the end of the third semester the average for the three semesters must be raised to 3.75 and this average must be maintained. Students who fail to meet these minimum requirements will be transferred to the general curriculum.

A student transferring to this college with advanced standing must meet the scholastic requirements at the level at which he transfers, in terms of the University's grading system, in order to be admitted to the pre-medical curriculum.

A student who enters the College of Medicine, having met the language requirement and the appropriate group requirements in Group B, pages 48 and 49, may receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences on completion of the first year of medicine. No student may receive credit toward this degree for more than one year of work done in any other college or university.

The specific requirements for admission to the College of Medicine are as follows:

	<i>Semester Hours</i>
Chemistry (including, in addition to introductory courses, four hours of organic chemistry, three hours of quantitative analysis, and three hours of physical chemistry—Chem. 101 or 102, 105, 122, 133, and 247)	16
Physics (including laboratory work in mechanics, heat, sound, light, and electricity—Physics 101 and 102)	8
Biology (including general ¹ and vertebrate zoology and general embryology)	10
Rhetoric and Composition (Rhet. 101 and 102)	6
Modern Language (French, German, or Spanish, etc.)	6
Social Sciences Electives (including courses from at least two of the following fields: anthropology, economics, history, philosophy, political science, psychology, and sociology)	14
Electives	28
Total.....	88

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

Pre-Dental Curriculum

STUDENTS APPLYING for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating class. They must maintain at all times in the curriculum a minimum average of 3.5. The work covered by the first two years of the pre-medical curriculum enables students to meet the requirements for admission to the University of Illinois College of Dentistry.

The specific requirements for admission to the College of Dentistry are as follows:

	<i>Semester Hours</i>
Chemistry (including four hours of organic chemistry— Chem. 101 or 102, 105, and 133)	12
Physics (Physics 101 and 102)	6
Biology (including general zoology ¹)	6
Rhetoric and Composition (Rhet. 101 and 102)	6
Electives (including history, economics, sociology, philosophy, and at least one modern language; excluding military, hygiene, and physical education)	30
Total.....	60

Pre-dental students who wish to be candidates for the degree of Bachelor of Science in Dentistry on the completion of the second year in the College of Dentistry should consult the College Catalog.

Pre-Nursing Curriculum

A NEW PROGRAM LEADING to a Bachelor of Science degree in nursing will be inaugurated with the start of the 1949 fall semester in affiliation with several Chicago hospital schools of nursing. The degree program is in two parts, a two-year pre-professional course and a 30 to 36 month professional program. Following the completion of the 60 semester hours of prescribed college work outlined below, students must enroll for professional education and clinical experience in nursing in one of the affiliated schools of nursing.

Students entering the pre-nursing curriculum must meet the requirements for admission to the general curriculum of the College of Liberal Arts and Sciences. The specific requirements of the pre-nursing curriculum are as follows:

	<i>Semester Hours</i>
Rhetoric and Composition	6
Social Sciences (including the equivalent of a course in sociology and a course in psychology)	15
Humanities	8
Chemistry (including a semester of organic chemistry)	13-15
Biological Sciences	8
Physics (special course)	4
Foreign Language; or Electives	8
Physical Education (4 semesters)	
Total.....	62-64

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

Pre-Veterinary Curriculum

THE TWO-YEAR PRE-VETERINARY curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating class. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	<i>Semester Hours</i>
Chemistry (including organic and quantitative analysis— Chem. 101 or 102, 105, 122, and 133)	16
Biological Science ¹ (including botany and general zoology)	8
Physics (including laboratory—Phys. 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhet. 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political sciences, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences	9
Free electives	7
Total.....	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in additional time.

Pre-Law Curriculum

FOR STUDENTS planning the study of law, the pre-legal courses constitute a highly important phase of their education, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Bureau at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law should comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours.

The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

¹The biological science requirement may be met by Biology 101 and 131

Home Economics

STUDENTS PLANNING to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

Teacher-Training Curricula

OF THE CURRICULA in teacher-training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work. Students who wish to take physical education may register in teacher-training for one year.

Prospective students in teacher-training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

Pre-Journalism Curriculum

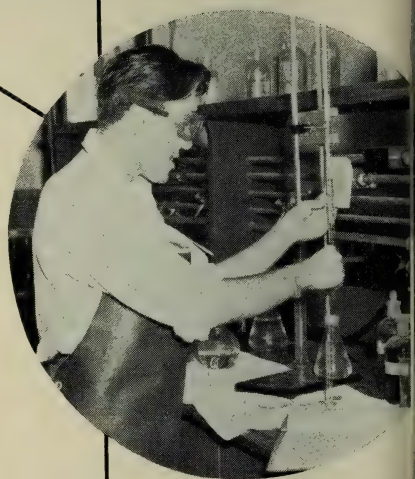
STUDENTS PLANNING to enter the School of Journalism are advised to register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism as a candidate for a degree, a student must have completed 56 semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military science, with an average grade of 3.5 (one-half of the college work with an average grade of B and one-half with an average grade of C). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, twelve hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism offers the following curricula: editorial, advertising, publication management, and radio.



CLASS ROOM

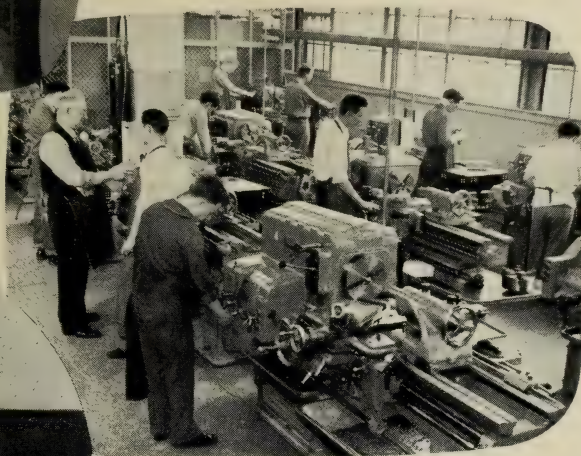


AND

LABORATORY



Students at the Chicago Undergraduate Division have the use of classrooms, 33 laboratories and 6 large lecture halls. Modern, fully-equipped labora-



are available in chemistry,
 al sciences, physics,
 s, and machine shop.
 architecture
 g rooms and eight
 uring drawing laboratories
 ovided.

Courses of Instruction

ACCOUNTANCY

101. **PRINCIPLES OF ACCOUNTING.** Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 101, and should register in Accountancy 102. S, I, and II. (3). Seniors receive only two hours credit.
102. **PRINCIPLES OF ACCOUNTING.** Similar to Accountancy 101. For those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 101 are permitted to register in Accountancy 102 and receive credit as in Accountancy 101 if their final grade is "C" or above. I and II. (2). Seniors receive only one hour credit. Prerequisite: One unit of entrance credit in bookkeeping.
105. **ACCOUNTING PROCEDURE.** Relation of business documents to the accounts; fundamentals of partnership and corporation accounting; business forms and records; financial statement analysis. S, I, and II. (3). Seniors receive only 2 hours credit. Prerequisite: Accountancy 101 or 102.
106. **ELEMENTARY COST ACCOUNTING.** Accounting for production management. Principles and methods of accounting for managerial control of costs of production. S, I, and II. (3). Prerequisite: One year of accountancy; sophomore standing; credit or registration in Economics 102 or 108.
108. **INTERMEDIATE ACCOUNTING.** Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization; interpretation of financial statements and analysis of the principal accounts represented therein. S, I, and II. (3). Prerequisite: Credit or registration in Accountancy 106.

ARCHITECTURE

101. **INTRODUCTION TO ARCHITECTURE.** Intended to serve beginning students in architecture as an orientation and indoctrination to the whole field and to develop certain fundamental perceptions and skills as a preparation for proceeding to architectural design. Illustrated lectures and laboratory. I and II. (3).
113. **ARCHITECTURE AND CIVILIZATION OF THE EARLY MEDITERRANEAN AREAS.** An analysis of space and form in Egypt, West Asia, Greece, and Rome. S, I, and II. (2). Prerequisite: Architecture 131 and 132.
114. **ARCHITECTURE AND CIVILIZATION OF EUROPE AND ISLAM, A.D. 300 TO 1200.** S, I, and II. (2). Prerequisite: Architecture 113.
131. **ARCHITECTURAL DESIGN.** Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. I and II. (3). Prerequisite: Registration in General Engineering Drawing 107.
132. **ARCHITECTURAL DESIGN.** Continuation of the fundamentals of architectural design. S, I, and II. (3). Prerequisite: Architecture 131, or consent of instructor; registration in General Engineering Drawing 108.
133. **ARCHITECTURAL DESIGN.** Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. I and II. (3). Prerequisite: Architecture 132.
134. **ARCHITECTURAL DESIGN.** Continuation of Architecture 133. II. (3). Prerequisite: Architecture 133.
143. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of wood frame construction; manufacture and uses of allied materials; working drawings; detailing. S, I, and II. (3). Prerequisite: Architecture 132.

144. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of masonry and fireproof construction; manufacture and uses of materials of such construction; working drawings; detailing. I and II. (3). Prerequisite: Architecture 143, or consent of instructor.

ART

111. **SURVEY OF ART HISTORY.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I and II. (3). Prerequisite: Sophomore standing.
112. **SURVEY OF ART HISTORY.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. I and II. (3). Prerequisite: Sophomore standing.
181. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal. I and II. (2).
182. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Simple groups of block forms, still life, and casts in pencil and charcoal. S, I, and II. (2). Prerequisite: Art 181.
183. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Charcoal drawings from the cast; water color. S, I, and II. (2). Prerequisite: Art 182.
184. **FREEHAND DRAWING.** Primarily for students in architecture and landscape architecture. Charcoal drawings from the cast; water color. S, I, and II. (2). Prerequisite: Art 183.

BACTERIOLOGY

104. **INTRODUCTORY BACTERIOLOGY.** Bacteria, yeasts, and molds; structure, morphology, and systematic relationships, their significance in general sanitation, agriculture, home economics, communicable diseases, etc. Designed to accompany Bacteriology 105 but may be taken separately. To be offered first semester, 1949-50, only. (3). Prerequisite: Sophomore standing, or consent of instructor.
105. **INTRODUCTORY BACTERIOLOGY LABORATORY.** Bacteriological technic; morphology and physiology of bacteria and related microorganisms; preparation of media and apparatus; staining and cultivation of microorganisms. Designed to accompany Bacteriology 104. To be offered first semester, 1949-50, only. (2). Prerequisite: Credit or registration in Bacteriology 104.

BIOLOGY

101. **FUNDAMENTALS OF BIOLOGY.** This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdom, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures, laboratory, and quiz. S, I, and II. (4). Seniors receive only three hours credit.
111. **GENERAL BOTANY.** A survey of the plant kingdom. The morphology and physiology of representative plants from Thallophytes through Angiosperms are considered in building up a system of natural classification based upon phylogenetic relationships. The importance of plants in the system of nature and human economics is emphasized. Lectures, laboratory, and quiz. S, I, and II. (4). Prerequisite: Biology 101. Seniors receive only three hours credit.
115. **INTRODUCTORY SYSTEMATIC BOTANY (PLANT TAXONOMY).** Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required.

- Lectures, laboratory, and quiz. I and II. (4). Prerequisite: Biology 101 and 111.
116. **ECONOMIC BOTANY.** Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Forest, drug, food, textile, beverage, and other industrial institutions. Lectures and discussions. II. (3). Prerequisite: Biology 101 and 111.
 121. **MICROBIOLOGY.** A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological, and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures, laboratory, and quiz. S, I, and II. (4). Prerequisite: Biology 101.
 126. **ADVANCED GENERAL BACTERIOLOGY.** General technic, special apparatus, and methods. Lectures, laboratory, and quiz. II. (4). Prerequisite: Biology 101 and 121.
 131. **GENERAL ZOOLOGY.** A survey of the animal kingdom, the phylogenetic relationships of animals, and classification. Emphasis is placed upon economically important and parasitic forms. Lectures, laboratory, and quiz. S, I, and II. (4). Prerequisite: Biology 101. Seniors receive only 3 hours credit.
 132. **COMPARATIVE VERTEBRATE ANATOMY.** Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their function and evolution. Lectures, laboratory, and quiz. S, I, and II. (5). Prerequisite: Biology 101 and 131, or Biology 101 with a grade of "B."
 136. **BIRD STUDY.** Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. II. (2).
 141. **VERTEBRATE PHYSIOLOGY.** This course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures, laboratory, and quiz. S, I, and II. (4). Prerequisite: Biology 101. Seniors receive only three hours credit.
 142. **PHYSIOLOGY OF THE NERVOUS SYSTEM.** This course is planned to give an understanding of the physiological activities by which the nervous system carries out its functions. Recommended as background for students of psychology, education, or biological science. Lectures, laboratory, and quiz. I and II. (4). Prerequisite: Biology 101 and 141.
 333. **VERTEBRATE EMBRYOLOGY.** The development of the vertebrate body and its organs. Lectures, laboratory, and quiz. I and II. (5). Prerequisite: Biology 101 and 132.

BOTANY

100. **INTRODUCTORY BOTANY.** Relation of the plant world to the physical and animal worlds; progressive development of the plants and their evolutionary significance; their part in the formation of soils, the production of food, and the maintenance of life. Lectures and discussions. Designed to accompany Botany 101, but may be elected without it. It is recommended that freshmen register in Botany 100 and 101 concurrently. To be offered first semester, 1949-50, only. (3). Seniors receive only two hours credit.
101. **INTRODUCTORY BOTANY LABORATORY.** Morphology, physiology, and ecology of representative groups of the plant world. One or two field trips. To be offered first semester, 1949-50, only. (2). Prerequisite: Botany 100, or concurrent registration therein.

160. **INTRODUCTORY SYSTEMATIC BOTANY (PLANT TAXONOMY).** Classification and identification of flowering plants, with special reference to the local flora and the needs of high school teachers. Occasional field trips required. To be offered first semester, 1949-50, only. (3). Prerequisite: Botany 100 and 101, or 104, or 105, or Division of General Studies 131 and 132.

CHEMISTRY

101. **GENERAL CHEMISTRY.** For students who have no entrance credit in high school chemistry. S, I, and II. (5). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 101. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
102. **GENERAL CHEMISTRY.** For all students who have one year of high school chemistry. S, I, and II. (3). Seniors receive only two hours credit. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 102 if they complete the course with a grade of "C" or higher. Prerequisite: One unit of entrance credit in chemistry or equivalent.
103. **GENERAL CHEMISTRY.** Lectures, recitations, and laboratory. For engineering students who have had no chemistry. I and II. (4). Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 103. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
104. **CHEMISTRY OF THE METALLIC ELEMENTS.** Lectures, recitations, and laboratory. Limited to students in the engineering curricula. S, I, and II. (4). Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105 or Chemistry 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
105. **INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.** Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 104 or 106. S, I, and II. (5). Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or Chemistry 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
106. **INORGANIC CHEMISTRY.** Metallic elements. For students in the chemistry and ceramic engineering curricula and for chemistry majors who are not pre-medical students. S, I, and II. (5). Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104 or Chemistry 105. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
107. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. I. (5). Seniors receive only three hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.
108. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. II. (5). Seniors receive only three hours credit. Prerequisite: Chemistry 107.
110. **QUALITATIVE ANALYSIS.** Qualitative analysis of metals and inorganic compounds. Open to all students; required of students whose major is chemistry or chemical engineering and those registered in the curriculum of chemistry except those who qualify for Chemistry 107-108. S, I, and II. (5). Prerequisite: Chemistry 106.

122. **ELEMENTARY QUANTITATIVE ANALYSIS.** Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. S, I, and II. (5). For students in home economics and pre-medical courses and all others who have not followed the sequence Chemistry 101, 102, or 103, 106, and 110. Prerequisite: Chemistry 104, 105, or 106.
133. **ELEMENTARY ORGANIC CHEMISTRY.** To fulfill the requirements for pre-medical, pre-dental, pre-veterinary, dietetics, and home economics students. Lectures, recitations, and laboratory. S, I, and II. (5). Prerequisite: Chemistry 105 or 110.
196. **GENERAL CHEMISTRY.** Taken with Chemistry 197, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the general education requirement in physical sciences for Liberal Arts students. I. (4). Prerequisite: Two units of high school mathematics.
197. **GENERAL CHEMISTRY.** Taken with Chemistry 196, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the general education requirement in physical sciences for Liberal Arts students. II. (4). Prerequisite: Chemistry 196.
247. **ELEMENTARY PHYSICAL CHEMISTRY.** For pre-medical students only. Lectures and laboratory. I and II. (4). Prerequisite: Chemistry 122, 133; Physics 102 or 104, or equivalent.

CIVIL ENGINEERING

101. **SURVEYING THEORY.** Theoretical aspects of plane and topographic surveying, land surveying; computation of areas and volumes. First three weeks of summer session. (3). Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
102. **SURVEYING PRACTICE.** Field practice of plane and topographic surveying. The use of the level, transit and tape in making engineering surveys and topographic maps. Last five weeks of summer term. At summer camp only. (4). Prerequisite: Civil Engineering 101, or concurrent registration therein.
103. **ROUTE SURVEYING.** Principles of the economic location of railways and highways; horizontal and vertical alinement for route projects; computations for earthwork quantities and distribution; railway track turnouts. I. (3). Prerequisite: Credit in civil engineering summer camp.
115. **GENERAL SURVEYING.** Use and care of surveying instruments; methods of making engineering surveys; computations of areas and volumes; contour problems; transit stadia mapping methods. I and II. (3). Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
160. **BUILDING CONSTRUCTION.** Materials, types of construction, and details for buildings. I and II. (3). Prerequisite: Sophomore standing.
235. **PLAIN CONCRETE.** Production, properties, specification requirements and uses of Portland cement, aggregates, mixing water, and admixtures; proportioning; field practice including tests on materials and concrete of various proportions; calculations and graphs based on values from concrete proportioning projects. I and II. (2). Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.

ECONOMICS

100. **INTRODUCTION TO BUSINESS.** An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. S, I, and II. (3).
101. **ECONOMIC HISTORY OF THE UNITED STATES.** Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only; others require consent of Associate Dean. S, I, and II. (3).

102. **PRINCIPLES OF ECONOMICS.** Principles of production, supply, demand, value, price, distribution. S, I, and II. (3). Prerequisite: One year of university work.
103. **PRINCIPLES OF ECONOMICS.** Principles of economics as applied to exchange, money, banking, price changes, governmental finance, etc. S, I, and II. (3). Prerequisite: Economics 102.
108. **ELEMENTS OF ECONOMICS.** A brief presentation of price determination, international trade and exchange, money and banking, and public finance. For non-Commerce students only. Not open to those who have had Economics 102 and 103. S, I, and II. (3). Prerequisite: One year of university work.
170. **ELEMENTS OF STATISTICS.** Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. S, I, and II. (3). Prerequisite: Economics 102 or 108; sophomore standing.
226. **FOREIGN COMMERCE AND COMMERCIAL POLICIES.** International trade relationships; changes in theories. I and II. (3). Prerequisite: Economics 102 and 103, or 108.

EDUCATION

100. **THE AMERICAN PUBLIC SCHOOL.** Introduction to the study of education. This course is required for all applicants for teaching certificates in Illinois. S, I, and II. (2). Prerequisite: Sophomore standing.

ELECTRICAL ENGINEERING

114. **WIRING AND ILLUMINATION.** Fundamentals of commercial and industrial illumination and wiring practice. Open to architecture and architectural engineering students only. I and II. (3). Prerequisite: Sophomore standing, or consent of instructor.
120. **ILLUMINATION ENGINEERING AND SECONDARY POWER DISTRIBUTION.** Fundamentals of illumination engineering practice and principles of commercial and industrial wiring. Lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. S, I, and II. (3). Open only to students in electrical engineering. Prerequisite: Sophomore standing in electrical engineering.
126. **INTRODUCTION TO ELECTRODYNAMICS.** Study of units and relations in electrostatic, magnetostatic, and electromagnetic circuits; characteristics of circuit parameters singly and in combination. I and II. (3). Prerequisite: Physics 103; Mathematics 132; credit or registration in Physics 104 and Mathematics 142.

ENGLISH

01. **INTRODUCTION TO POETRY.** Understanding of poetry; study of major types of poetry and of elements of versification. I and II. (3). Credit is not given for English 111 or 112 in addition to English 101 or 102, or for any of these courses in addition to English 121 and 122. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
02. **STUDY OF THE DRAMA.** Understanding of drama through the reading and analyzing of representative plays, past and modern. S, I, and II. (3). See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
11. **MASTERPIECES OF ENGLISH LITERATURE.** Shakespeare, Donne, King James Bible, Milton, Pope, and Fielding. I and II. (3). See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
12. **MASTERPIECES OF ENGLISH LITERATURE.** Gay, Goldsmith, Sheridan, Austen, Byron, Dickens, Arnold, Eliot, Browning. S, I, and II. (3). See note

- under English 101. Seniors receive only two hours credit. Prerequisite: English 111.
113. AMERICAN LITERATURE. A survey of American literature with lectures on the historical and cultural background. From 1620 to the Civil War. I and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
 114. AMERICAN LITERATURE. A survey of American literature with lectures on the historical and cultural background. From the Civil War to the 20th Century. S, I, and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
 121. CHIEF ENGLISH WRITERS BEFORE 1800. *Canterbury Tales*, *Utopia*, three plays by Shakespeare, *Paradise Lost*, *Gulliver's Travels*, *Tom Jones*, *The Life of Johnson*, *Rasselas*. Intended for students in professional and technical courses, such as law, medicine, commerce, engineering, etc. S, I, and II. (4). See note under English 101. This course, plus English 122, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing.
 122. CHIEF ENGLISH WRITERS OF THE NINETEENTH CENTURY. Wordsworth, Byron, Carlyle's *Past and Present*, Matthew Arnold's *Prose and Poetry*, *Rubaiyat of Omar Khayyam*, Readings from Huxley, Browning's Poems and Plays, two novels. Intended for students in professional and technical courses, such as law, medicine, commerce, engineering, etc. S, I, and II. (4). See note under English 101. This course, plus English 122, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing.
 131. INTRODUCTION TO SHAKESPEARE. S, I, and II. (3). Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
 144. CONTEMPORARY POETRY. American poetry from Whitman to Sandburg; and English poetry from the Pre-Raphaelites to Masefield. II. (3). Prerequisite: Six hours of English literature, or junior standing.

FRENCH

101. ELEMENTARY COURSE. Grammar, pronunciation, reading of modern authors, composition, conversation. For students who have no credit in French. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for French 101 without French 102.
102. ELEMENTARY COURSE. Continuation of French 101. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: French 101, or one year of high school French.
103. MODERN FRENCH. Rapid reading of modern authors; syntax and composition. S, I, and II. (4). Prerequisite: French 102, or two years of high school French.
104. MODERN FRENCH. Continuation of French 103. Rapid reading of modern authors, syntax and composition. I and II. (4). Prerequisite: French 103, or three years of high school French.
201. INTRODUCTION TO FRENCH LITERATURE. I. (3). Prerequisite: French 104, or four years of high school French.
202. INTRODUCTION TO FRENCH LITERATURE. II. (3). Prerequisite: French 104, or four years of high school French.

GENERAL ENGINEERING DRAWING

101. ELEMENTS OF DRAWING. Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Plane geometry.
102. DESCRIPTIVE GEOMETRY. Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geo-

- metrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing. S, I, and II. (4). Prerequisite: Plane and solid geometry; General Engineering Drawing 101.
03. **AIRCRAFT DRAFTING AND LOFTING.** Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting—plane, tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. I and II. (3). Prerequisite: General Engineering Drawing 101 or 104, and 102.
04. **ADVANCED DRAWING.** Review of orthographic projection and working drawings; isometric, oblique, perspective, chart and diagram, topographical, architectural, and structural drawing. I and II. (4). Prerequisite: General Engineering Drawing 101, or substantial equivalent
06. **ELEMENTS OF DRAWING.** Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings, piping and perspective drawing, and structural drawing. For students in chemical and metallurgical engineering. I and II. (3). Prerequisite: Plane geometry.
07. **ARCHITECTURAL PROJECTIONS.** Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. S, I, and II. (2). Prerequisite: Plane geometry.
08. **ARCHITECTURAL PROJECTIONS (CONTINUED).** Shades and shadows; oblique, isometric, and perspective drawing; developments. S, I, and II. (2). Prerequisite: General Engineering Drawing 107.
10. **PICTORIAL DRAWING.** Mechanical and freehand drawings of axonometric, oblique and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. S, I, and II. (3). Prerequisite: General Engineering Drawing 102, or 107 and 108.
12. **GRAPHICAL CALCULATIONS.** Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula of the College of Engineering. S, I, and II. (1). Prerequisite: General Engineering Drawing 101 or equivalent; Mathematics 122.

GEOGRAPHY

01. **ELEMENTS OF GEOGRAPHY.** The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Lectures, discussions, and quiz. S, I, and II. (5). Seniors or those with credit in Geography 104 receive only four hours credit.
03. **ECONOMIC GEOGRAPHY.** Geographic conditions affecting industries, production, and commerce of the world; development and relation of commercial areas to location and availability of resources; markets and transportation routes. Discussion and quiz. S, I, and II. (5). Seniors or those with credit in Geography 104 will receive only four hours credit. Not open to students who have credit in Geography 105 or 106. Prerequisite: Geography 101.
06. **GENERAL GEOGRAPHY.** A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 101, 103, 104, or 105. S, I, and II. (5). Seniors receive only four hours credit.

123. GEOGRAPHY OF ILLINOIS. Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. II. (3). Prerequisite: Geography 101, or 104, or 106, or consent of instructor.

GEOLOGY

101. PHYSICAL GEOLOGY. Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. S, I, and II. (4). Geology 101 and 102 meet the general education requirement in the physical sciences. Seniors receive only four hours credit.
102. HISTORICAL GEOLOGY. Evolution of the earth and its life. Lectures and laboratory. I and II. (4). Seniors receive only three hours credit. Prerequisite: Geology 101, or Division of General Studies 141.
150. GEOLOGY FOR ENGINEERS. I and II. (3). Prerequisite: Sophomore standing in the College of Engineering.

GERMAN

101. ELEMENTARY COURSE. Oral practice, reading, and grammar for beginners. Not open to students who have had high school credit in this language. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for German 101 without German 102.
102. ELEMENTARY COURSE. Continuation of German 101. Oral practice, reading, and grammar. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: German 101, or one year of high school German.
103. INTERMEDIATE COURSE. Modern narrative prose. Oral practice and sight reading. S, I, and II. (4). Prerequisite: German 102, or two years of high school German, or equivalent.
104. INTERMEDIATE COURSE. Continuation of German 103. Literary reading. Classical and modern narrative prose. Oral practice and sight reading. S, I, and II. (4). Prerequisite: German 103, or three years of high school German, or equivalent.
210. MASTERPIECES OF GERMAN LITERATURE. Introduction into German literature, its subjects, forms, and ideals. I and II. (3). Prerequisite: German 104, 144, 2 years of college German, or equivalent.

HISTORY

111. MODERN EUROPEAN HISTORY FROM THE RENAISSANCE TO 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. I. (4). Seniors receive only three hours credit.
112. MODERN EUROPEAN HISTORY, 1815 TO THE PRESENT. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. S and II. (4). Seniors receive only three hours credit.
131. HISTORY OF ENGLAND TO 1688. History of the British peoples to 1688. I. (3). Seniors receive only two hours credit.
132. HISTORY OF ENGLAND, 1688 TO 1949. Modern history of the United Kingdom; colonial and imperial development. S and II. (3). Seniors receive only two hours credit.
151. HISTORY OF THE UNITED STATES TO 1865. Colonial foundations, the movement for independence, early years of the Republic. I. (3). Prerequisite: Sophomore standing.
152. HISTORY OF THE UNITED STATES, 1865-1949. A century of national life and organization. S and II. (3). Prerequisite: Sophomore standing.

31. THE ANCIENT WORLD. Ancient empires and Greece. I. (3). Prerequisite: Sophomore standing.
32. THE ANCIENT WORLD. Rome. II. (3). Prerequisite: Sophomore standing.

HYGIENE

02. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate women during their first year of residence. I and II. (2). Seniors receive only one hour credit.
05. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate men during their first year of residence. I and II. (2). Seniors receive only one hour credit.

MANAGEMENT

01. INDUSTRIAL ORGANIZATION AND MANAGEMENT. Organization plans, administrative policies, and management problems with special attention to manufacturing units. S, I, and II. (3). Prerequisite: Economics 102, or consent of Associate Dean; junior standing.

MARKETING

01. PRINCIPLES OF MARKETING. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. S, I, and II. (3). Prerequisite: Economics 102 and 103 or consent of Associate Dean; junior standing.

MATHEMATICS

03. INTRODUCTION TO COLLEGE ALGEBRA. S, I, and II. (3). Students having $1\frac{1}{2}$ entrance units in algebra receive no credit. Seniors receive no credit.
04. ELEMENTS OF ALGEBRA AND TRIGONOMETRY. For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 122. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 114. I and II. (3). Prerequisite: High school algebra, 1 unit; plane geometry, 1 unit.
06. SOLID GEOMETRY. Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. S, I, and II. (3). Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
08. ELEMENTARY PLANE GEOMETRY FOR VETERANS. This course deals with the usual topics of high school geometry. It is designed as a refresher course for veterans who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course. I and II. No credit.
2. COLLEGE ALGEBRA. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
4. PLANE TRIGONOMETRY. S, I, and II. (2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
5. ADVANCED TRIGONOMETRY. Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, De Moivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. I and II. (2). Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 114, or entrance trigonometry ($\frac{1}{2}$ unit).

117. COMBINED FRESHMAN MATHEMATICS. A combined course integrating all the usual topics of algebra, trigonometry, and analytic geometry, and also some topics of differential calculus. For students of chemistry, chemical engineering, ceramic engineering, ceramics, metallurgy, and mining engineering. I. (5). Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
122. ANALYTIC GEOMETRY. Plane and solid analytic geometry. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Mathematics 111 or 112 and 114 or 115.
127. COMBINED FRESHMAN MATHEMATICS. Continuation of Mathematics 117, II. (4). Prerequisite: Mathematics 117.
132. CALCULUS. First course for students of mathematics and engineering. S, I, and II. (5). Prerequisite: Mathematics 122.
137. CALCULUS. For students of chemistry, chemical engineering, ceramics, ceramic engineering, metallurgy, and mining engineering. I. (3). Prerequisite: Mathematics 117 and 127, or consent of department.
142. CALCULUS. Second course for students of mathematics and engineering. S, I, and II. (3). Prerequisite: Mathematics 132.
147. CALCULUS. Continuation of Mathematics 137. II. (3). Prerequisite: Mathematics 137.
161. STATISTICS. II. (3). Prerequisite: Mathematics 111 or 112; sophomore standing.
341. DIFFERENTIAL EQUATIONS. II. (3 hours, or one unit). Prerequisite: Mathematics 132 and 142 or 137 and 147.

MECHANICAL ENGINEERING

171. MECHANISM. A study of the transmission and modification of motion by link-work, cams, gears, belts, ropes, chains, etc.; theory of gear tooth action; gear tooth systems and production methods; point paths, displacement diagrams. I and II. (2). Prerequisite: General Engineering Drawing 101; Registration in Physics 103 and Mathematics 132.
182. MANUFACTURING PROCESSES. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. I and II. (3). Prerequisite: Sophomore standing in aeronautical engineering, or consent of instructor.
183. MATERIALS CASTING. Casting as a process of fabrication; the molding process including machine molding; molding sand characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages, and disadvantages; gray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. I and II. (3). Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.
184. METAL PROCESSING. Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. S, I, and II. (3). Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.

PHILOSOPHY

101. INTRODUCTION TO PHILOSOPHY. Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in western culture. S, I, and II. (3). Prerequisite: Sophomore standing.
102. LOGIC. Reasoning, detection of fallacies, evidence. S, I, and II. (3). Prerequisite: Sophomore standing.

5. MORAL IDEAS AND PRACTICE. I and II. (2). Prerequisite: Sophomore standing. Credit is not given for both Philosophy 105 and 103.

PHYSICAL EDUCATION FOR MEN

1. 102, 103, 104. PRESCRIBED EXERCISES. Open only to students who are assigned by the Health Service. Students enrolling for the first time should register for P.E.M. 101. Students enrolling for the second, third, and fourth time should register for P.E.M. 102, 103, 104, respectively. S, I, and II. (1).
6. DEVELOPMENTAL ACTIVITIES. A program of activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards. S, I, and II. (1).
8. BEGINNING SWIMMING. S. (1).
2. INDIVIDUAL TUMBLING STUNTS. S, I, and II. (1).
3. DOUBLE TUMBLING STUNTS. I and II. (1).
4. APPARATUS STUNTS. I and II. (1).
7. BOXING. I and II. (1).
8. WRESTLING. S, I, and II. (1).
0. PERSONAL DEFENSE ACTIVITIES. I and II. (1).
3. WEIGHT LIFTING. S, I, and II. (1).
9. VOLLEYBALL. I and II. (1).
2. ARCHERY. S, I, and II. (1).
6. BADMINTON. S, I, and II. (1).
0. BOATING AND FISHING. I and II. (1). Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities, or approval of the Director of Physical Education.
0. PROFESSIONAL ORIENTATION. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors. I and II. (2).

PHYSICAL EDUCATION FOR WOMEN

0. FUNDAMENTALS OF MOTOR FITNESS. S, I, and II. (1).
1. INDIVIDUAL GYMNASTICS. Recommendation from the Department of Health Service is necessary for registration in this course. S, I, and II. (1).
5. ELEMENTARY RHYTHMS. S, I, and II. (1).
5. INTERMEDIATE RHYTHMS. I and II. (1). Prerequisite: P.E.W. 105.
7. ADVANCED RHYTHMS. An opportunity for those who have completed previous work to further their skills in muscular control and extend their creative interests and appreciations of art through the medium of the dance. I and II. (1). Prerequisite: P.E.W. 105 and 106.
0. ELEMENTARY SWIMMING. S. (1).
3. BASKETBALL. I and II. (1).
4. VOLLEYBALL. I and II. (1).
5. SOFTBALL. S, I, and II. (1).
0. BADMINTON. I and II. (1).
2. BOWLING. S. (1).
5. ARCHERY. I and II. (1).
1. TUMBLING AND APPARATUS STUNTS. The side horse, parallel bars, stall bars, buck, etc. are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used. I and II. (1).

143. AMERICAN SQUARE DANCE. I and II. (1).
144. ELEMENTARY FOLK DANCE. I and II. (1).

PHYSICS

101. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences and in architecture. S, I, and II. (5). Prerequisite: Trigonometry.
102. GENERAL PHYSICS (LIGHT, ELECTRICITY, AND MAGNETISM). Lecture with demonstrations, recitations, and laboratory. For students in arts and sciences and in architecture. S, I, and II. (5). Prerequisite: Physics 101.
103. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. S, I, and II. (5). Prerequisite: Registration in Mathematics 132 or 137.
104. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, AND LIGHT). Lecture with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. S, I, and II. (5). Prerequisite: Physics 103.

PHYSIOLOGY

101. MAMMALIAN PHYSIOLOGY. A survey of the structure and function of the human body. Lectures and demonstrations. To be offered first semester, 1949-50 only. (3). Seniors receive only two hours credit. Credit is not given for Physiology 102, 103, or 104-105, in addition to 101.

POLITICAL SCIENCE

103. INTRODUCTION TO POLITICAL SCIENCE. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: scope and method of political science; constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy. I. (3).
104. INTRODUCTION TO INTERNATIONAL POLITICS. This is designed as a survey of the type initiated in Political Science 103. Topics to be covered will include the following: the development of the world system of states; the international political and economic struggle for power, the determination and conduct of foreign policy; problems involved in maintaining peace; and organizations devoted to its maintenance. II. (3).
150. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS. Historic development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. S, I, and II. (3). Prerequisite: Sophomore standing.
151. AMERICAN GOVERNMENT: FUNCTIONS. Functions of national, state, and local governments; foreign relations and national defense; taxation and financial law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. S, I, and II. (3). Students may not receive credit for both Political Science 151 and 101-102. Prerequisite: Sophomore standing; Political Science 150, or consent of the department.

PSYCHOLOGY

100. INTRODUCTION TO PSYCHOLOGY. Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking.

- emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. S, I, and II. (4). Prerequisite: Sophomore standing.
120. **FIELDS OF PSYCHOLOGY.** Psychological principles of man's development and place in society, industry, education, and legal institutions. I. (4). Prerequisite: Psychology 100, or 103, or 106, or junior standing.
45. **INDUSTRIAL PSYCHOLOGY.** Psychology of industrial work and management—employee relationships. II. (2). Prerequisite: Psychology 100, or 103, or 106.
50. **CHARACTER AND PERSONALITY.** Analysis of the non-intellectual aspects and determinants of mentality; problems; and personnel psychology. S and II. (3). Prerequisite: Psychology 100, or 103, or 106, or equivalent.

RHETORIC

00. **FRESHMAN REMEDIAL RHETORIC AND COMPOSITION.** Open to students who fail the placement test for admission to Rhetoric 101. Intensive review of fundamentals, with considerable practice in composition. Students passing this course will be admitted to Rhetoric 101 without further examination. S, I, and II. No credit.
01. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: A passing grade on the Rhetoric 101 placement examination or a passing grade in Rhetoric 100.
02. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: Rhetoric 101.
33. **EXPOSITORY WRITING.** I and II. (3). Prerequisite: Rhetoric 101 and 102; sophomore standing.
44. **NARRATIVE WRITING.** Elements and practice of narrative writing. Not a course in short-story writing. I and II. (3). Prerequisite: Rhetoric 101 and 102; sophomore standing.
51. **BUSINESS LETTER WRITING.** S, I, and II. (2). Prerequisite: Rhetoric 101 and 102. This course is not counted toward a major in English.

SOCIAL SCIENCES

11. **THE INDIVIDUAL AND SOCIETY.** A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. I and II. (4).
12. **BASES OF AMERICAN LIFE.** A general education course designed to acquaint the student with adequate knowledge of the physical, economic, political, and social developments of the United States and to equip him for intelligent active participation in local and national life. I and II. (4).
13. **WORLD PATTERNS AND WORLD PROBLEMS.** A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. I and II. (4).
14. **THE UNITY OF KNOWLEDGE.** A general education course designed to acquaint the student with the development of philosophical and scientific disciplines in intellectual history, and to equip him to direct his further general education by his awareness of the integrative factors in current education and culture. I and II. (4). Prerequisite: Sophomore standings; 3.5 average.

SOCIOLOGY

100. PRINCIPLES OF SOCIOLOGY. S, I, and II. (3). Prerequisite: Sophomore standing.
110. SOCIAL FACTORS IN PERSONALITY. Nature of person and relation to institutions, social order, and development. S, I, and II. (3). Prerequisite: Sociology 100.
140. SOCIAL CONTROL. I and II. (2). Prerequisite: Sociology 100.

SPANISH

101. ELEMENTARY SPANISH. For students who have no credit in Spanish. S, I, and II. (4). Seniors receive only three hours credit. No credit toward graduation is given for Spanish 101 without 102.
102. ELEMENTARY SPANISH. Continuation of Spanish 101. S, I, and II. (4). Seniors receive only three hours credit. Prerequisite: Spanish 101, or one year of high school Spanish.
103. INTERMEDIATE SPANISH. Rapid reading, review of grammar, composition conversation. S, I, and II. (4). Prerequisite: Spanish 102, or two years of high school Spanish.
104. INTERMEDIATE SPANISH. Continuation of Spanish 103. S, I, and II. (4). Prerequisite: Spanish 103, or three years of high school Spanish.
113. ELEMENTARY COMPOSITION AND CONVERSATION. Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. I and II. (2). Prerequisite: Spanish 102, or two years of high school Spanish.
201. INTRODUCTION TO SPANISH LITERATURE. Reading of modern authors of Spain and Latin-America. I. (3). Prerequisite: Spanish 104, or four years of high school Spanish.
202. INTRODUCTION TO SPANISH LITERATURE. Reading of modern authors of Spain and Latin-America. I and II. (3). Prerequisite: Spanish 201.

SPEECH

101. PRINCIPLES OF EFFECTIVE SPEAKING. Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. S, I, and II. (3). Seniors receive only two hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.
105. VOICE AND ARTICULATION. A drill course for the improvement of the normal speaking voice. II. (2). Seniors receive only one hour credit. Prerequisite: Consent of instructor.
111. BUSINESS AND PROFESSIONAL SPEAKING. Study, preparation, and presentation of the chief types of business speeches, with special attention to conference sales talks, interviews, job applications. S, I, and II. (2). Prerequisite: Speech 101; sophomore standing.
117. ARGUMENTATION. Methods of logical analysis; the kinds and forms of argument; the adaptation of argumentative materials to audience situations; and the forms of debate. Practice debates on current subjects. I and II. (3). Prerequisite: Speech 101; sophomore standing.
141. ORAL INTERPRETATION OF LITERATURE. Principles of interpretation, analysis, and oral reading of prose literature and verse. S, I, and II. (2). Seniors receive only one hour credit.
161. FUNDAMENTALS OF ACTING. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the plot.

as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. II. (3). Prerequisite: Speech 141.

THEORETICAL AND APPLIED MECHANICS

150. ANALYTICAL MECHANICS (STATICS). Resultants of force systems, algebraic and graphical condition of equilibrium of force systems. Analysis of forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. S, I, and II. (2). Prerequisite: Registration in Mathematics 142.
154. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. I and II. (4). Prerequisite: Registration in Mathematics 142.
156. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211. S, I, and II. (5). Prerequisite: Registration in Mathematics 142.
171. ELEMENTS OF MECHANICS (STATICS). Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. I and II. (3). Prerequisite: Mathematics 122.
172. STRENGTH OF MATERIALS. Relationships between external forces acting on beams and the stresses produced; shear, moment, slope, and deflection diagrams; moment of inertia; columns. For architects only. I and II. (3). Prerequisite: Theoretical and Applied Mechanics 171.
211. ANALYTICAL MECHANICS (DYNAMICS). Displacement, velocity and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, and impulse and momentum. S, I, and II. (3). Prerequisite: Theoretical and Applied Mechanics 150.

ZOOLOGY

(See Biology)

Academic Personnel

Chicago Undergraduate Division

1949-50

PROFESSORS

- Bailey, Harold Wood, Ph.D., LL.D., Professor of Mathematics and Associate Dean of Liberal Arts and Sciences.
Caveny, Charles Claire, Ph.D., Dean of the Undergraduate Division in Chicago, with the rank of Professor.
Erskine, Earl Bradley, M.D., Professor of Hygiene, Director of Health Service, and University Health Officer.
Hackett, Robert Phillip, Ph.D., Professor of Accountancy and Associate Dean of Commerce and Business Administration.
Nowlan, Frederick S., Ph.D., Professor of Mathematics.

ASSOCIATE PROFESSORS

- Babler, Bernard J., Ph.D., Associate Professor of Physical Sciences.
Barber, Hollis W., Ph.D., Associate Professor of Social Sciences.
Carlson, Clarence I., B.S., Associate Professor of General Engineering Drawing and Head of the Department.
Corliss, John Johnson, Ph.D., Associate Professor of Mathematics and Chairman of the Division.
Cutshall, Alden D., Ph.D., Associate Professor of Social Sciences.
Derrick, Lucile, Ph.D., Associate Professor of Economics.
Grampp, William Dyer, Ph.D., Associate Professor of Economics.
Haines, Russell D., M.S., C.P.A., Associate Professor of Accountancy.
Harris, Roscoe E., Ph.D., Associate Professor of Physics and Head of the Department.
Hopkins, Dwight Lucian, Ph.D., Associate Professor of Biological Sciences and Chairman of the Division.
Jones, John Oliver, M.S., Associate Professor of Physical Education for Men and Director of the Division.
Kozacka, Joseph Stanley, M.S., Associate Professor of Mechanical Engineering and Head of Shop Laboratories.
Lipman, Eli Allan, Ph.D., Associate Professor of Social Sciences and Staff Counselor in the Student Counseling Bureau.
McEldowney, Harold B., B.S., Associate Professor of Architecture and Head of the Department.
Meloy, Carl Ridge, Ph.D., Associate Professor of Physical Sciences and Chairman of the Division.
Riddle, Donald Wayne, Ph.D., Associate Professor of Social Sciences and Chairman of the Division.
Trezise, Frederick W., M.S., Associate Dean and Associate Professor of Engineering Sciences.
Van Keuren, Ernest Canfield, Ph.D., Associate Professor of English and Chairman of the Division of Humanities.
Vest, Eugene B., Ph.D., Associate Professor of English.

ASSISTANT PROFESSORS

- Allen, Harry R., M.Arch., Assistant Professor of Architecture.
Barry, John R., Ph.D., Counselor in the Student Counseling Bureau and Assistant Professor of Psychology.
Barton, Helen M., Ed.D., Assistant Professor of Physical Education and Chairman of the Women's Division.

(Assistant Professors — Continued)

- Bucher, Gladys Rosalin, Ph.D., Assistant Professor of Biological Sciences.
- Cardew, Emily, R.N., M.S., Assistant Professor of Nursing Education and Coordinator of the Affiliation Program for Hospital Schools of Nursing.
- Chaderton, Julian Cuthbert, B.S., Assistant Professor of Civil Engineering.
- Cobb, Arnold C., M.S., Assistant Professor of Theoretical and Applied Mechanics.
- DeFilipps, Anthony Joseph, B.S., Assistant Professor of Architecture.
- Fox, Samuel, M.B.A., J.D., LL.M., Assistant Professor of Accountancy.
- Frank, Evelyn, Ph.D., Assistant Professor of Mathematics.
- Fuller, John Bernard, Ph.D., Assistant Professor of Foreign Languages.
- Gibson, Roland, Ph.D., Assistant Professor of Economics.
- Gillett, Clarence Henry, A.B., Assistant Professor of Economics.
- Goppert, Harold Rinehart, M.S., Assistant Professor of General Engineering Drawing.
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- Gum, Mrs. Wanda Newsum, Ed.D., Assistant Professor of Social Sciences; Teacher Training Advisor; and Special Counselor in the Student Counseling Bureau.
- Gutnayer, Joseph Marion, D.p.l.G., Assistant Professor of Architecture; Visiting Lecturer in Architecture.
- Hartley, Miles C., Ph.D., Assistant Professor of Mathematics.
- Hershey, Arthur Willis, M.S., Assistant Professor of Electrical Engineering.
- Hilker, Gloria, M.D., Assistant Professor of Hygiene and Medical Adviser for Women.
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- Klassen, Peter P., Ph.D., Assistant Professor of Social Sciences.
- Kostka, Helen Marie, M.D., Assistant Professor of Hygiene and Medical Adviser for Women.
- Lease, Benjamin, Ph.D., Assistant Professor of English and Staff Counselor in the Student Counseling Bureau.
- Lein, Marie E., Ph.D., Assistant Professor of Foreign Languages.
- Mansfield, Joseph Victor, Ph.D., Assistant Professor of Physical Sciences.
- Maxfield, David Kempton, M.S., Assistant Professor of Library Science and Librarian.
- Mikolajczyk, Henry Louis, A.M., Assistant Professor of Architecture.
- Moore, Eunice Martha, Ph.D., Assistant Professor of Physical Sciences.
- Morris, Daniel J., Ph.D., Assistant Professor of Social Sciences.
- Nicholson, Robert Lawrence, Ph.D., Assistant Professor of Social Sciences.
- Perkins, Roy Burchard, B.S., Assistant Professor of General Engineering Drawing.
- Pickett, Arthur David, Ph.D., Assistant Professor of Biological Sciences and Assistant to the Dean of Liberal Arts and Sciences.
- Price, Rupert Maurice, A.M., Assistant Professor of Physics; Assistant Dean of Engineering Sciences; and Staff Counselor in Student Counseling Bureau.
- Rhymer, Esther Ione, Ph.D., Assistant Professor of Biological Sciences.
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- Sánchez, José, Ph.D., Assistant Professor of Foreign Languages.
- Sangster, William, Ph.D., Assistant Professor of Biological Sciences.
- Schermerhorn, James Ray, M.S., Assistant Professor of Mechanical Engineering.
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- Schuyler, William Moorhouse, Ph.D., Assistant Professor of Foreign Languages.
- Shapiro, Samuel Emanuel, B.S., Assistant Professor of General Engineering Drawing.
- Shopen, Kenneth, A.B., Assistant Professor of Art, in charge of Art.

(Assistant Professors — Continued)

Silbergeld, Sam, Ph.D., Assistant Professor of Physical Sciences.
Stubblefield, Frank M., Ph.D., Assistant Professor of Physical Sciences.
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Willner, Ernest Steven, Ph.D., Assistant Professor of Foreign Languages.

INSTRUCTORS

Alberti, Furio, B.S., Instructor in Mathematics.
Allen, William R., M.S., Instructor in Mathematics.
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Bates, John Frederick, B.S., Instructor in Physics.
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Berg, Edwin Weidenaar, M.B.A., Instructor in Accountancy and Staff Counselor in the Student Personnel Bureau.
Berglund, Winifred Virginia, A.M., Instructor in Mathematics.
Berrafato, Peter Robert, B.S., Instructor in Physical Education for Men and Director of Intramural Athletics.
Bild, Mrs. Bernice R., A.M., Assistant Counselor and Psychometrist in the Student Counseling Bureau and Instructor in Psychology.
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Braunfeld, Mrs. Johanna, A.M., Instructor in Foreign Languages.
Broussard, Louis, A.M., Instructor in English.
Brown, Gleah D., A.M., Instructor in English.
Burkholder, Paul, M.S., Instructor in Physical Sciences.
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Driscoll, Mae Anna, B.S., Instructor in Physics.
Dunne, William Joseph, M.B.A., Instructor in Economics.
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Elliston, Richard Harold, B.S., Instructor in Physical Sciences.
Faughnan, Mrs. Rita Johnson, M.S., Instructor in Biological Sciences.
Fawcett, Clarence G., M.S., Instructor in Physical Sciences.
Feinstein, Irwin Keith, A.M., Instructor in Mathematics.
Findlay, James E., B.S., Instructor in General Engineering Drawing.
Finney, Mrs. Mildred Smith, A.M., Instructor in Social Sciences.

(Instructors — Continued)

- Fordham, Sheldon L., B.S., Instructor in Physical Education for Men; Track and Cross Country Coach.
- Frey, Harold Jacob, B.S., Instructor in Physical Education for Men; Gymnastics Coach.
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- Grenard, Mrs. Madeleine Phillips, A.M., Instructor in Mathematics.
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- Hartoch, Arnold J., A.M., Instructor in Foreign Languages.
- Heffernan, Patricia Ann, B.S., Instructor in Physical Sciences.
- Hegie, Mrs. Lucy Swindell, A.M., Instructor in English.
- Heilman, Ann E., A.M., Instructor in Social Sciences and Staff Counselor in the Student Counseling Bureau.
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- Hewlett, Mrs. Marilyn N., A.M., Instructor in English.
- Hipple, Mrs. Eleanor Karlstrom, A.M., Instructor in English.
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- Hovde, Helen Janet, A.M., Instructor in English.
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- Johnson, Herman Julian, M.S., Instructor in Physics and Staff Counselor in the Student Counseling Bureau.
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- Karson, Carl Martin, B.S., Instructor in Economics and Staff Counselor in the Student Counseling Bureau.
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- Kevy, Martin J., B.S., Instructor in General Engineering Drawing.
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- Kove, Mrs. Willie N. S., A.M., Instructor in English.
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- Karsh, John O., Jr., A.M., Instructor in Foreign Languages.
- McGuire, Blanche Bertilla, A.B., Instructor in English.
- Kerten, Horace G., A.M., Instructor in English.

(Instructors — Continued)

- Michels, Charles John, M.S., Instructor in Theoretical and Applied Mechanics.
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Sackheim, George I., M.S., Instructor in Physical Sciences.
Schmidt, Mrs. Helen Brown, A.B., B.L.S., Acquisitions Librarian, with the rank of Instructor.
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Teichmann, Mrs. Elizabeth, A.M., Instructor in Foreign Languages.
Timmis, Mrs. Beatrice Stephany, A.M., Instructor in English.

(Instructors — Continued)

omlinson, Mrs. Mary Ellen, B.S., B.S. in L.S., Catalogue Librarian, with the rank of Instructor.
ort, Mrs. Ferdina Capparelli, A.M., Instructor in Foreign Languages.
arner, Lona L., M.S., Instructor in Mathematics.
nfer, Louis, M.S., Instructor in Social Sciences.
agman, Julius, B.S., Instructor in Physical Sciences.
illett, Maurita Frances, A.M., Instructor in English.
illiams, Henry Fortson, B.S., Instructor in Economics.
illiams, Mrs. Rena Medlin, B.S., Instructor in English.
ilson, Charles Craig, B.Ed., Instructor in Mathematics.
right, Mrs. Elizabeth V., A.M., Instructor in English.
ankow, Henry George, Jr., A.M., Instructor in Accountancy.
notti, George J., B.S., Instructor in General Engineering Drawing.
eimer, Jeannette Mary, M.S., Instructor in Physical Sciences.

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avanaugh, Joyce Jerene, B.S. in L.S., Assistant in Library Sciences.
edvilas, Leo L., B.S., Assistant in Physical Education for Men; Basketball Coach.
ojek, Joseph L., B.S., Assistant in Economics.
romrey, John M., B.S., Assistant in Physical Education for Men; Tennis Coach.
ason, Mrs. Elizabeth, B.S., Assistant in Physical Education for Women.
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ontcalm, Benedict, B.S., Assistant in Physical Education for Men; Assistant Gymnastics Coach.
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hutz, Howard A., B.S., Assistant in Physical Education for Men; Golf Coach.
ghe, John P., B.S., Assistant in Physical Education for Men; Trainer.
owner, John H., B.S., Assistant in Physical Education for Men; Assistant to Director of Intramural Athletics.
nde Bunt, Carol, B.A., Personnel Technician, Student Counseling Bureau.

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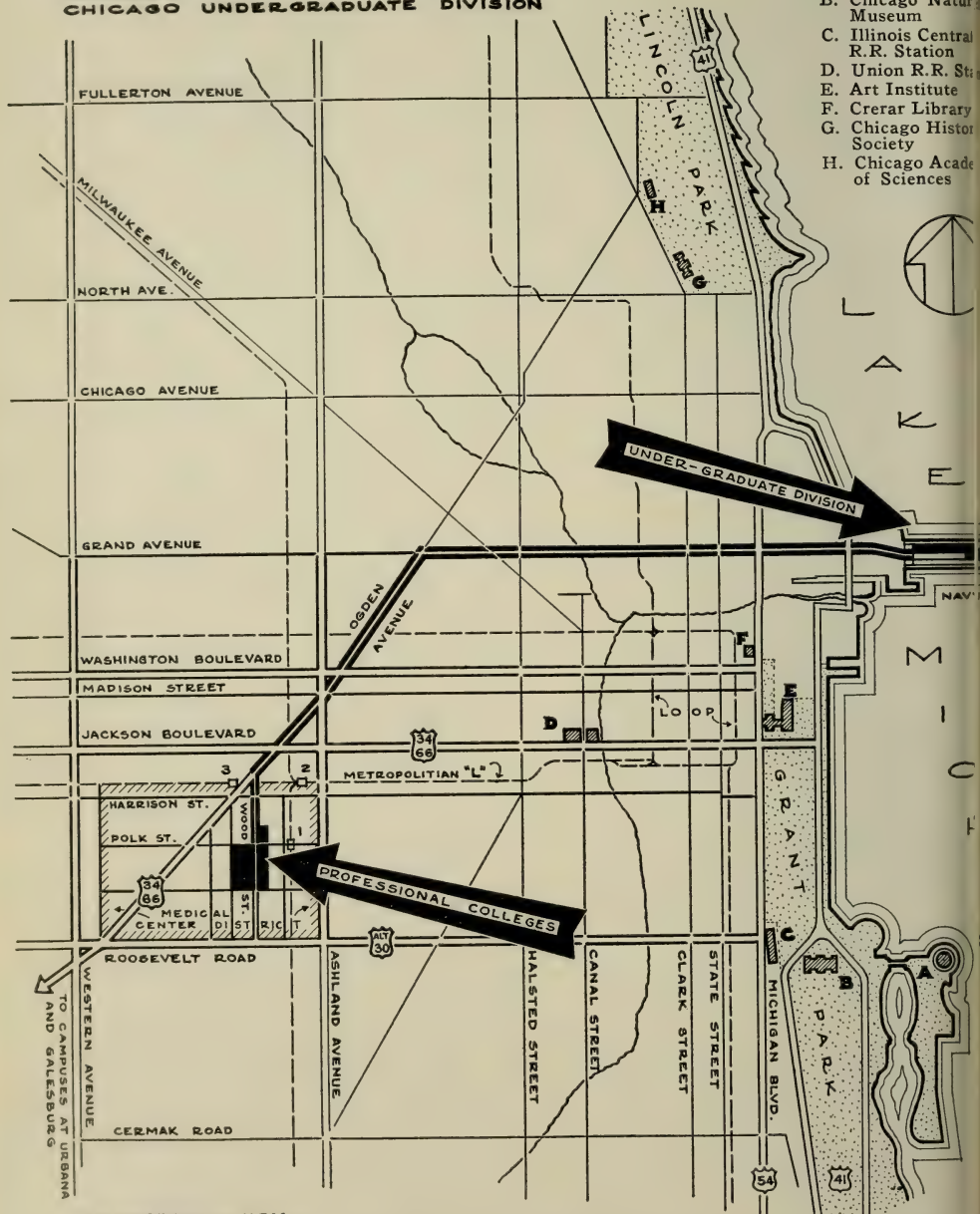
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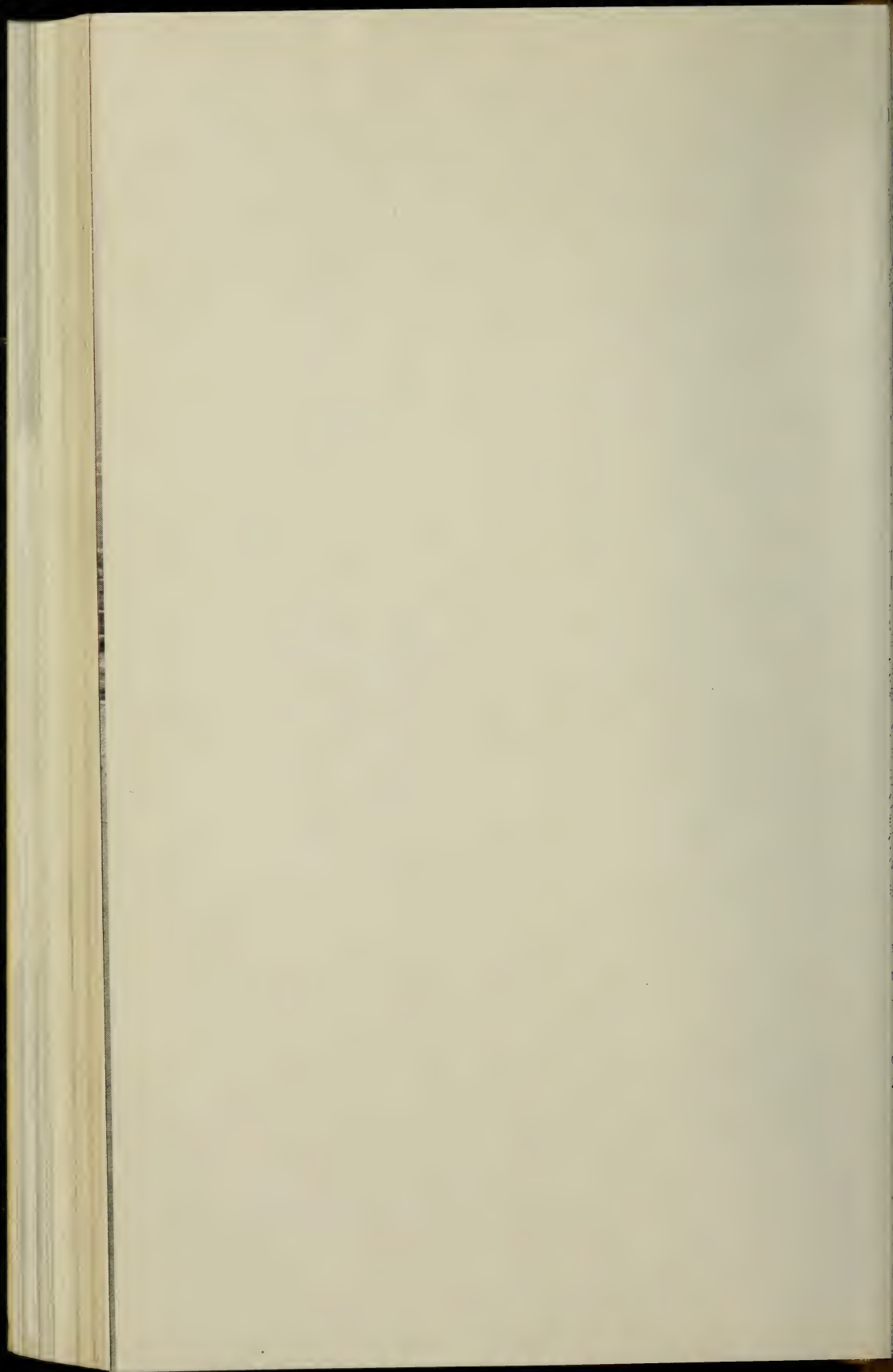
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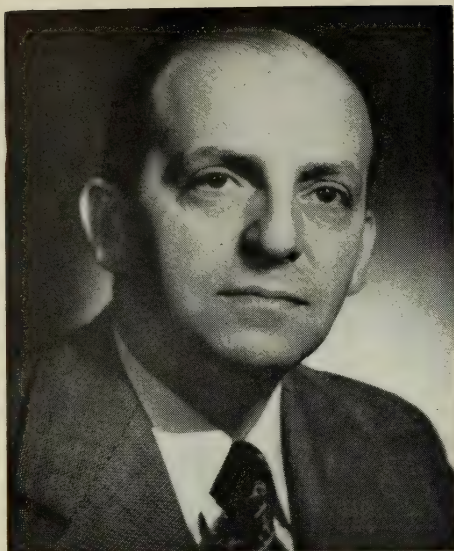




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Charles C. Caveny
Dean

YOUR UNIVERSITY

The Chicago Undergraduate Division of the University is entering its fifth school year. Since October, 1946, the Undergraduate Division has offered a well-rounded educational program to the thousands of students who found it to their advantage to live in the Chicago metropolitan area while attending college.

Courses of study are offered in three colleges, the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Engineering. In addition, architecture and architectural engineering curricula, as a part of the College of Fine and Applied Arts, are offered under the administration of the College of Engineering. The professional curricula in physical education is also available.

Students enrolled at the Chicago Undergraduate Division have the same status as students matriculating on the Urbana campus. Courses of instruction, the schedule of fees, and admission requirements are the same on both campuses. Students completing the curricula at the Chicago Undergraduate Division are given priority in completing their work for degrees on the Urbana campus.

Excellent instructional facilities are provided in the school's 68 classrooms and 33 modern, fully-equipped laboratories. A 45,000-volume library,

food service, well-furnished lounges, and recreational facilities supplement the academic program. A large gymnasium adjacent to the Pier houses the athletic program.

As an important part of the services of the Student Counseling Bureau, educational and vocational guidance examinations are offered to prospective students. Counseling services of the Bureau, as well as the facilities of the offices of the Dean of Students and his assistants, the Dean of Men and Dean of Women, are available to students at all times.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of University of Illinois tradition.

ADMISSION

There are Seven Steps

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. *Obtain an application for admission.* The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.
2. *Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school.* These records must be forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, by an official of the school concerned. In addition, applicants who have been on active duty in the Armed Forces must also submit photostatic copies of their service separation papers.
3. *Decide which college and curriculum in the University he desires to enter.* To assist applicants in making this decision, this division of the University offers Vocational and Educational Guidance Examinations which are followed by professional counseling. For new freshmen, these guidance examinations are a required activity of the orientation period. However, since the time available for counseling during the orientation period is extremely limited, these examinations are now being offered several months in advance. Appointments for these examinations may



**Admissions counseling — Harold E. Temmer,
Examiner and Recorder**

be made through the Office of Admissions and Records at the time an application blank is obtained. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

4. *Complete and return the application blank.*

5. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated. If the application is approved, the applicant will be sent a permit to enter, an appointment for such placement, guidance, and motor fitness tests as may be necessary, an appointment for a physical examination, and information as to the date and place of his college meeting and of registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiencies, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. *Report to Navy Pier for physical examination, college meeting, and tests listed in paragraph 5 above, on the dates specified in the notice which the applicant has received.*

7. *Register, pay tuition and fees, and start classes.*

ADMISSION REQUIREMENTS

For Admission Without Entrance Examinations (by certificate)

I. HIGH SCHOOL GRADUATES

A. General University admission requirements:

1. Graduation from an accredited high school.
2. Age.—An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit, on petition, a student fifteen years of age who meets all other requirements for admission and who is to reside while attending the University with his parents or guardian or with someone selected by them.
3. Fifteen units of acceptable secondary school work distributed as follows:
 - a. A minimum of nine units of work in the academic fields (English, mathematics, sciences, foreign languages, history and social studies) including:
 - (1) At least three units of English.
 - (2) At least two majors (including English) and one minor selected from the list of acceptable majors and minors on page 7. *Exception:* The requirement of a second major is waived for applicants who rank in the upper half of their class scholastically on graduation.)
 - b. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards.

B. College Subject Requirements.—Applicants must present credit in the subjects required for admission to the college and curriculum of their choice (See Chart below).

Required and Recommended Subjects for Admission

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
COLLEGE OF COMMERCE All Fields (Accountancy, Banking and Finance, Commerce and Law, Commercial Teaching, Economics, Industrial Administration, Management, Marketing, Public Affairs, Secretarial Training).	English, 3 units. Algebra, 1 unit. Geometry, 1 unit.	Advanced Algebra, $\frac{1}{2}$ unit. Science, 2 units (including 1 unit with laboratory).

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).	English, 3 units. Algebra, 1½ units. Plane Geometry, 1 unit. Solid Geometry, ½ unit. (See Paragraph 3, page 8.)	Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.
Curricula in Architecture: Design Option (for B.S. degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering).	English, 3 units. Algebra, 1½ units. Geometry, 1 unit. (See Paragraph 3, page 8.)	Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economics and history).
COLLEGE OF LIBERAL ARTS AND SCIENCES General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology. General Curriculum preparatory to Education, Journalism, Law. Teacher-training Curricula (Not requiring Chemistry, Physics, or Mathematics).	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 7.)	Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology. Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine, Nursing. Teacher-training Curricula (Requiring Chemistry, Physics, and Mathematics).	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 7.) Algebra, 1 unit. Geometry, 1 unit.	Mathematics, 3 units, instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.
Special Curricula in Chemistry and Chemical Engineering.	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 7.) Algebra, 1½ units. Geometry, 1 unit. (See Paragraph 3, page 8.)	Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.

¹Foreign language requirement is waived for students who rank in the upper half of their high school graduating class.

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
Elementary Education Curriculum.	English, 3 units. Algebra, 1 unit. Geometry, 1 unit.	Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.
PHYSICAL EDUCATION Curriculum for Men and Curriculum for Women.	English, 3 units. Written approval of the Director of Physical Education.	Science, 3 units (including biology). Social Studies, 2 units. Health and safety education, and participation in school programs of physical education and athletics.

ACCEPTABLE MAJORS AND MINORS

Definitions:

Unit.—A unit course of study in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

Major.—A major consists of three unit courses in one field.

Minor.—A minor consists of two unit courses in one field.

The required majors and minor defined above may be selected from the following five groups:

(1) English — In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

(2) Foreign Language — Three units in one language constitute a major. Two units in one language constitute a minor. The foreign language requirement for admission to any curriculum is fulfilled by two units in any one of the following: German, French, Spanish, Italian, Latin, and Classical Greek. Less than one unit in a language is not acceptable for admission.

(3) Mathematics — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.) In Engineering, and in the chemistry and chemical engineering curricula of L.A.S., where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence.

(4) Science — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit from the above subjects.

(5) Social Studies — Including history, civics, economics, commercial or economic geography, and sociology. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit of history.

II. TRANSFER STUDENTS

A. All requirements listed in Item I, page 5. *Exception:* An applicant who is transferring from an institution rated as Class "A" by the University and who is deficient in the admission requirements listed in Item I may be admitted if he presents at least 30 semester hours of credit in transfer with a 3.00 average ("C") and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

B. Honorable dismissal from all institutions of higher learning previously attended, and a collegiate scholastic average of at least 3.00 ("C")

Checking records with the Office
of Admissions and Records



in terms of the University of Illinois grading system. *Exception:* An applicant whose record at some other institution comes within either of the following classifications may enter the University only on approval of the dean of the college concerned and under the conditions imposed by him:

1. An applicant on probation at, or dropped from, another institution for poor scholarship or for disciplinary reasons. (In the latter instance, he must also obtain the approval of the University Senate Committee on Student Discipline.)
2. A person whose collegiate scholastic average is less than 3.00 in terms of the University of Illinois grading system.

III. NON-RESIDENT APPLICANTS

Applicants who are not residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in Item I, page 5, and further provided that:

- A. As high school graduates they ranked scholastically in the upper half of their class on graduation.
- B. As transfer students they present a collegiate scholastic average of at least 3.5 (mid-way between "C" and "B") in terms of the University of Illinois grading system.

IV. SPECIAL SCHOLASTIC ADMISSION REQUIREMENTS

A. High school graduates who are residents of the State of Illinois and who rank in the fourth (lowest) quarter of their class scholastically on graduation, if otherwise qualified, will be admitted on scholastic probation.

B. Applicants for the following special curricula must meet the scholastic minima indicated opposite each curriculum.

Curriculum	Scholastic Requirements
1. Pre-Medical	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	3.5 collegiate average through the third semester of collegiate work. 3.75 collegiate average commencing with the fourth semester of college work.
2. Pre-Dental, Pre-Veterinary Medicine	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	Collegiate average of 3.5.
3. Chemistry, Chemical Engineering	
a. High school graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 or collegiate average of 3.5 in chemistry subjects.
4. Engineering Physics	
a. High school graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 and collegiate average of 3.5 in all college-level mathematics and physics.

ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations as outlined below: (*Exception:* This section does not apply to applicants who are deficient in the scholastic admission requirements outlined in Items III and IV, page 9. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.)

University of Illinois Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

- A. Graduates of Unaccredited High Schools:
 - 1. Applicants who rank in the top twenty-five per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.
 - 2. Applicants who are graduates of unaccredited secondary schools and rank below the top twenty-five per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and curricular admission requirements.
- B. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of at least four units of work in subjects to be designated by the University.
- C. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.
- D. Applicants who do not meet University admission requirements with respect to any one or more of the following:

Total units of credit	}	may qualify by passing University of Illinois entrance examinations in the subjects in which they are deficient
Total academic units		
Majors and minors		
Subjects required, for admission to the college of the applicants' choice		

General Educational Development Tests

United States Armed Forces Institute General Educational Development Tests.—Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult non-veterans (non-veterans 21 years of age or older) may qualify for admission to the University by passing the USAFI General Educational Development Tests under the following conditions:

A. Applicants seeking admission to the College of Liberal Arts and Sciences may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants, whose G.E.D. scores are passing but below minimum required for upper-half classification scholastically, may qualify if they present credit from accredited sources in two successive years of an acceptable foreign language. *Exception:* Applicants desiring to enter specialized curricula in Liberal Arts and Sciences for which mathematics is required (see page 6) may not qualify by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.

B. Applicants seeking admission to the College of Commerce and Business Administration or the College of Engineering may qualify by passing the G.E.D. tests and presenting credit from accredited sources in the required mathematics.

C. Applicants seeking admission to the Physical Education curricula may qualify by passing the G.E.D. tests and securing the approval of the Director of Physical Education.

FEES

TUITION — Illinois residents (except those holding scholarships) registering in nine hours or more pay a tuition fee of \$40.00
Non-residents registering in nine hours or more pay a tuition fee of 80.00
Students taking eight hours or less pay \$3 per hour if residents of Illinois, or \$6 per hour if non-residents.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in six hours or more pay as insurance for hospital and medical service a fee of 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—All students regis-

tering in nine hours or more pay a laboratory, library, and supply fee of 8.00
Students taking less than this amount of instruction pay \$4 each semester.

STUDENT ACTIVITIES FEE—All students registering in six hours or more pay a student activities fee of..... 6.00

DEPOSITS—Each student must make a deposit of \$5 at the time of his first registration. An additional deposit of \$10 (\$15 in all) is required of students withdrawing military equipment. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment*, etc. Whenever the amount of the \$5 deposit falls below \$2.50 or the amount of the \$15 deposit falls below \$12.50, the student will be required immediately by additional deposit to bring the total up to \$5 and \$15, respectively. Any balance in deposit will be returned to the student in case he officially withdraws from the University. The \$10 military deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment.

Fees for the Summer Session

TUITION—Illinois residents (except those holding scholarships) registering in five hours or more pay a tuition fee of\$20.00
Non-residents registering in five hours or more pay a tuition fee of. 40.00
Students taking four hours or less pay \$3 per hour if residents of Illinois, or \$6 per hour if non-residents.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in four hours or more pay as insurance for hospital and medical service a fee of..... 2.50

LABORATORY, LIBRARY, AND SUPPLY FEE—All students registering in five hours or more pay a laboratory, library, and supply fee of 4.00
Students taking less than this amount of instruction pay \$2 for the summer session.

STUDENT ACTIVITIES FEE—All students registering in four hours or more pay a student activities fee of..... 3.00
All fees listed above are due and payable in full when the student registers.

Refunds of Fees

In case a student withdraws from a course or from the University¹ during the first ten days of instruction, the total amount of his fees for the work dropped will be refunded. After ten days and before the middle of the semester, a rebate of one-half the fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

Miscellaneous Fees

SERVICE CHARGE FOR DEFERRED FEES—A service charge of ten percent of the amount of fees deferred, but not to exceed \$3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded *except* that a minimum service charge of \$1 is retained by the University in all cases. The general deposit of \$5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

CHANGE FEE—For every change slip issued later than noon of the second Monday following registration the fee is.....\$1.00

TRANSCRIPT FEE—Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is..... .50

LATE REGISTRATION FEE—Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

SPECIAL EXAMINATION FEE—For any special examination to remove a failure the fee is..... 5.00

LISTENER'S FEE—Persons not connected with the University who attend classes as listeners pay for each course..... 7.50

¹Students leaving the University before the end of a semester or session should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student's being dropped at the end of the semester.

DIVISION OF SPECIAL SERVICES FOR WAR VETERANS

The University of Illinois Division of Special Services for War Veterans has established an office at the Chicago Undergraduate Division for the purpose of assisting the veteran in returning to civilian life, but it does not register students as on the Urbana campus. Instead, a counselor in this office assists the veteran in making educational adjustments and guides him in his search for the curriculum which will best satisfy his needs.

The veteran whose previous training has not fitted him for admission to the curriculum of his choice may, subject to the admission requirements of the University and provided the veteran has 56 or more credit hours, register as a Division of Special Services for War Veterans student in one of the three colleges: Engineering, Commerce, or Liberal Arts and Sciences. The student may then take courses which will enable him to meet the requirements for admission to his chosen curriculum, and to transfer into it when he is adequately prepared to enter the field of his choice.

For veterans having 56 or more credit hours whose special needs cannot be satisfied by existing curricula, and who request a special program at the time of their first registration, the Counselor for the Division of Special Services for War Veterans, provided this request is approved, will assist in arranging an educational program especially planned to meet the individual needs and interests of the veteran. This program shall be presented to those administering the program for final approval. All such programs will be equivalent in quality and quantity to the traditional curricula. After successfully completing such a program at the Chicago Undergraduate Division, the veteran may continue the program at Urbana for a degree of Bachelor of Science in the Division of Special Services for War Veterans.

Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in

courses pursued while the veteran was in service, may be transferred upon the basis of evaluation by the Examiner and Recorder.

All the University's agencies to assist students in matters of student life and welfare are available for veterans. Inquiries should be directed to the Veterans Counselor, University of Illinois, Chicago Undergraduate Division, Chicago 11, Illinois.

VETERANS' REGISTRATION INFORMATION

Veterans may qualify for admission to the Chicago Undergraduate Division under the regular entrance requirements listed on pages 3 to 12.

Honorable discharge papers and credentials showing special training courses completed while in the Armed Forces should accompany high school and college credentials at the time of application. These credentials should be sent to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, Illinois, for evaluation.

Procedure for Registration Under the G. I. Bill

1. Obtain a Certificate of Eligibility from the Veterans Administration, 366 West Adams Street, Chicago. A copy of discharge papers must accompany this application.
2. Keep the Certificate until the day of registration for classes. It will not be accepted before that time.
3. Bring the form and \$5.00 for the general deposit to registration. Books and supplies will be furnished.

Previous Training Under the G. I. Bill

Those veterans previously registered at another school under the G. I. Bill should:

1. Obtain a notice of termination of training (VA form 7-1905) from the former school.
2. Present this form at once to the Veterans Administration, 366 West Adams Street, Chicago. It is an application for a supplemental Certificate of Eligibility.

Public Law 16

Students receiving benefits of education under the Vocational Rehabilitation Act should be certain that there is an authorization on file for them at the University by the time they are to register.

Transfers from Urbana or Galesburg

Students transferring to the Chicago Undergraduate Division from the Urbana campus are responsible for requesting the transfer of their Certificates or Letters to Navy Pier; they are *not* transferred with academic records. To request a transfer of Certificates or Letters, address Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration Building (West), Urbana, Illinois. Those students formerly attending the Galesburg Division should also send a written request for transfer of records to the above address. All files are now in the Urbana office. Veterans who have attended either Urbana or Galesburg under P. L. 16 must also notify their training officer of their intention to transfer to the Chicago Undergraduate Division.

Veterans Who Have Not Obtained an Authorization

Veterans who do not have an authorization for training from the Veterans Administration at the time of registration will be required to pay tuition and fees and to buy all necessary books and equipment. A refund will be made when the authorization is presented to the University. Information concerning education under the G.I. Bill or P. L. 16 is available from the Office of Admissions and Records, Room 15.

Student artists at work



STUDENT WELFARE

The University's interest in the individual student extends beyond the class room to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling, instruction in healthful living, and extracurricular activities, both social and cultural.

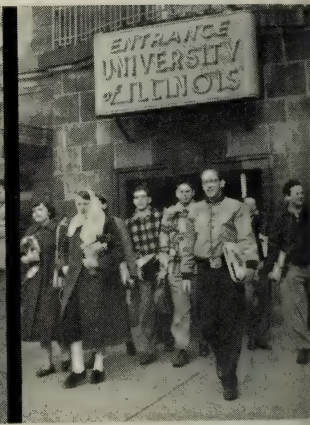
Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Counseling Bureau available to prospective students seeking help in planning their college careers. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester. At the beginning of the fall semester, an orientation period program is arranged by the Student Congress to introduce new students to extracurricular activities.

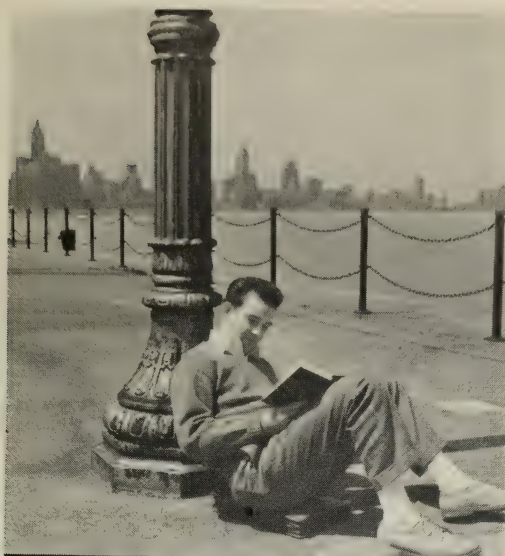
Counseling facilities of the offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Student Counseling Bureau are available to students at all times during their college work at the Chicago Undergraduate Division. Students are urged to discuss specific educational problems with their instructors. Members of the instructional staff hold weekly office hours for conferences with individual students.

A popular spot for conversation and study

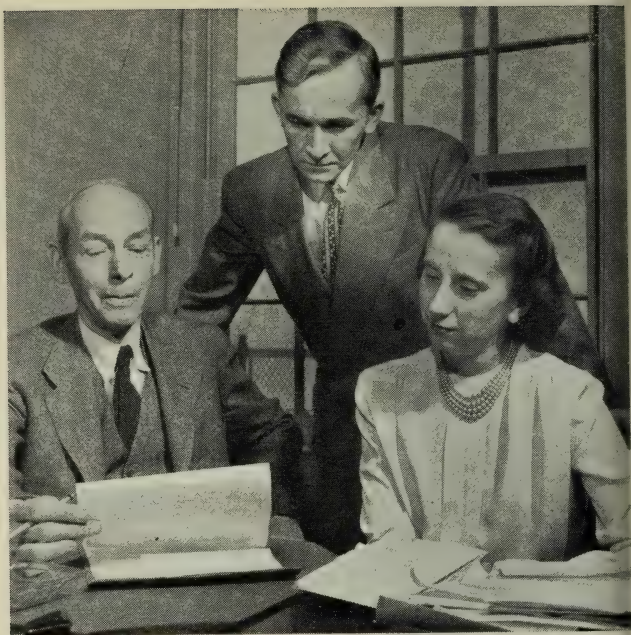


Heading for home





Study on the terrace
Lake view from the lounge



**Counselors for student problems —
Edwin A. Wolleson, Dean of Students,
Warren O. Brown, Dean of Men,
Ann Bromley, Dean of Women**

DEAN OF STUDENTS

The Dean of Students is in charge of most matters of student welfare and activities. As part of his organization the Director of Health Services, the Dean of Men, the Dean of Women, and their assistants are general advisors to whom students may turn for assistance and advice. Details of these counseling services are given in the following sections.

In addition, the Dean of Students is the administrative officer responsible for all extracurricular activities and is charged with the co-ordination of the extracurricular programs of the recognized student clubs and organizations. The Committee on Student Affairs serves in an advisory capacity to the Dean of Students in extracurricular matters. He is also advisor to foreign students at the Chicago Undergraduate Division.

In connection with the responsibility for student welfare, the Dean of Students is authorized to attend sessions of the Disciplinary Committee, but has no vote.

DEAN OF MEN

The Office of the Dean of Men is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily.

As the financial advisor for student organizations and treasurer of the Student Organizations Fund, the Dean of Men takes an active part in student extracurricular affairs. He also serves as the advisor to Phi Eta Sigma, national scholastic honorary for first-year men students.

The Student Employment Division which assists needy students with contacts for part-time employment and the Hospital and Medical Service plan are under the supervision of the Dean of Men. Attendance records for both veteran and non-veteran students are maintained by the Office of the Dean of Men.

DEAN OF WOMEN

The Office of the Dean of Women is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the advisor to women's organizations at the Chicago Undergraduate Division and as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women.

All student social events are coordinated and unified through her office in her capacity as chairman of the Administrative Council Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.

Scholarships and Loan Funds

Undergraduate Scholarships that exempt the holder from tuition fees include: County Scholarships, General Assembly Scholarships, University Scholarships, and Military Scholarships. Particular attention is called to the William J. Cook Fund Scholarship. Applications should be initiated with high school principals and should be filed with the Chicago Community Trust, 10 South LaSalle Street, Chicago. High school students should apply to the high school principal not later than April 15; college students, not later than May 15.

Loan funds are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualifications which must be met by applicants.

Detailed information regarding scholarships and loan funds may be obtained from the Office of the Dean of Students. For information as to Military Scholarships, see the Office of Admissions and Records.

Student Employment

For students who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Men maintains a list of part-time jobs available, both in University offices and in industry and business in the Chicago area. Applications for part-time positions should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity, rather than choice.

Hospital and Medical Service

A Hospital and Medical Service fee of five dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital or to home, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, drugs, and dressings. (X-ray is excluded.) The Hospital and Medical Service plan is under the supervision of the Dean of Men.

Note: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee may petition, through the Office of the Dean of Men *during the first ten days of instruction*, for a refund of this fee.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff of the University Health Service, are required of all students prior to the time of their first registration and each year thereafter. Chest X-rays are required as part of the physical examination. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students free of charge.

The staff of five physicians instruct classes in hygiene and sanitation as follows:

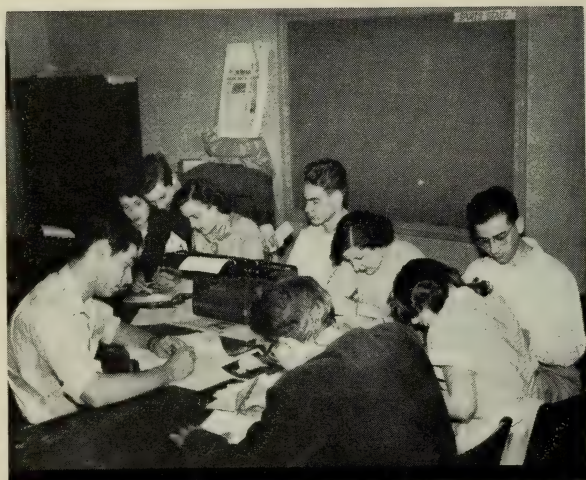
HYGIENE 102. PERSONAL AND ENVIRONMENTAL HYGIENE.
—Required of all undergraduate women during their first year of residence. I, II; 2 hours.

HYGIENE 105. PERSONAL AND ENVIRONMENTAL HYGIENE.
—Required of all undergraduate men during their first year of residence. I, II; 2 hours.

Counseling and diagnosis — Health Service



As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations. It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5:30 p.m. daily and mornings on Saturdays and during vacation periods.



Editing the weekly
newspaper

Holiday formal

EXTRACURRICULAR ACTIVITIES

Student extracurricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. Thirty-five student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body.

The Office of the Dean of Students is responsible for the administration and coordination of all extracurricular activities. Functioning in an advisory capacity are the Committee on Student Affairs and the Student Congress.

The student government organization, the Student Congress, is comprised of four officers and fourteen representatives selected by vote of the entire student body at general elections each semester. Officers of the Congress serve on the Committee on Student Affairs.

Joint student-faculty administrative committees supervise the operating policies of student organizations. These committees are composed of a faculty representative of the Committee on Student Affairs and two members of the Student Congress.

Students are provided an opportunity for experience in journalism through the weekly student newspaper, the *Pier Illini*, written and edited entirely by students. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph*, the University of Illinois engineering periodical.

Backing the team



Concentration on chess





Modern dance recital

Supplementing classroom work, three language clubs, the Classics Club, the Commerce Club, the Geography Club, and the International Relations Club provide cultural programs open to all students. Engineering, architecture, chemistry, and pre-medical students may take part in the activities of their respective professional societies, several of which are affiliated with national professional organizations.

Students interested in music and drama may seek membership in the University Choir, the Theatre Guild, the Radio Production Club, the dance band, or the orchestra. Extracurricular organizations in athletics and physical education include the Varsity Lettermen's Club, Orchesis, the modern dance organization, and the Women's Athletic Association.

All-University dances are sponsored by the University dance committee. Other varied student interests have prompted the establishment of a chess club, a photography club, and an amateur radio organization.

Honorary scholastic societies include Alpha Lambda Delta for freshman women and Phi Eta Sigma for freshman men.

THE SPEECH CLINIC

The services of the Speech Clinic are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who stutter, lisp, have foreign accents, hearing deficiencies, or voice problems are aided by the clinic. The clinic also assists students

with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical or teaching careers are aided in meeting professional speech requirements.

The clinic is equipped with modern testing instruments and the staff is scientifically trained in diagnosis and treatment. Students may consult with the Speech Clinic by making appointments in Room 300, the Student Counseling Bureau office. No charge is made for the service.

DEBATING

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating and discussion. All students, including those without previous experience, may take part in the forensics activities.

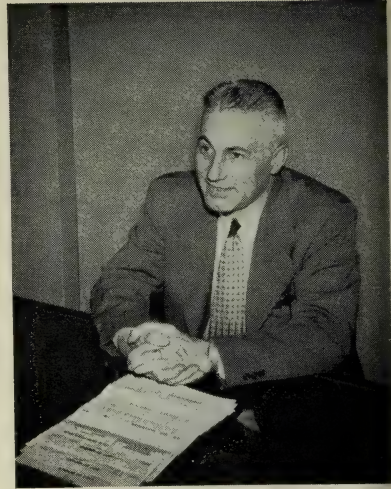
The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the city have included colleges and universities from Florida, Indiana, Iowa, Michigan, Missouri, Ohio, and Wisconsin. Debaters from Navy Pier also attend tournaments in Illinois and nearby states where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition, where the team has won honors and has maintained an excellent competitive record.

Problems of national and international interest are the topics for the forum discussions conducted as part of the forensics program. During the school year, the forum discussions are held every two weeks with speakers from visiting colleges and universities. A number of major universities and colleges in Illinois and adjacent states have participated in the forums. The talks by speakers from the Chicago Undergraduate Division and from the visiting schools are followed by audience participation periods.

Debating and the forum discussions are under the supervision of the Forensic Council, a faculty committee appointed by the Dean of the Chicago Undergraduate Division. Members of the faculty of the speech department work directly with student participants.

John O. Jones
Director of Athletics



ATHLETICS

With the addition of football to the intercollegiate program, the Chicago Undergraduate Division will participate in ten varsity sports. The program includes basketball, baseball, cross-country, track, wrestling, swimming, gymnastics, tennis, and golf. In accordance with a special ruling, freshman are allowed to participate in varsity sports without this participation affecting the three-year eligibility rule.

A special feature is the extensive intramural program in which students, with the exception of those on varsity squads, can elect to take part in boxing, wrestling, badminton, table-tennis, volleyball, basketball, swimming, gymnastics, handball, weight lifting, tennis, track, and softball. The intramural and intercollegiate programs are under the supervision of an athletic sub-committee of student and faculty representatives. Both programs are financed through funds from student activities fees.

The Chicago Undergraduate Division Gymnasium, adjacent to the west end of Navy Pier, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the huge gymnasium which has floor space for eight full-size basketball courts.

A staff of 14 coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

UNIVERSITY SERVICES

STUDENT COUNSELING BUREAU

One main purpose of the Student Counseling Bureau is to help students and prospective students to understand, choose, and best use those facilities of the University which will meet their individual needs. Services of trained counselors are available to every student as an aid in finding his place in the educational scheme at Illinois and in meeting University standards of attainment.

Freshman Guidance Tests administered by the Bureau are taken by all first-year students prior to registration in the University. Scores on these tests are important indicators of educational and vocational aptitudes, interests, and abilities. Interpretations of these test scores, along with previous records and other information offered by the student, aid in selecting the proper college and program. When requested by the student, other specialized tests of interests and aptitudes are given and related to individual planning.

Group practice in study and reading skills at the college level is available through participation in non-credit classes offered by the Bureau. This service is intended for the many students who enter college without knowing how to fully utilize their potentialities and interests. Most students who complete one of these courses take better notes, prepare for examinations with less cramming, concentrate and remember with greater ease, and discover added pleasure in reading.

Trained counselors are also available to assist students in coping with problems at home, school, or work. Any student with an educational, vocational, or other personal problem may make an appointment with a counselor in the Student Counseling Bureau. The Bureau is located in Room 300, third floor south, near the east end of the Pier.

Timing a manual test



Consulting the reference desk



UNIVERSITY LIBRARY

The Library of the Chicago Undergraduate Division is outstanding among the newer college libraries of the nation. Although only four years old, it contains nearly 45,000 volumes, all of which have been carefully chosen with the institution's undergraduate curricula in mind, as well as the general and recreational interests of students and faculty. Orders for new books are being placed constantly, so that it is expected that the Library will contain 60,000 selected volumes within the next few years.

While no attempt will ever be made to duplicate scholarly research facilities already available in the city, strong emphasis is placed on general reference and readers' advisory service, with close liaison maintained with the teaching program and student activities. An exceptional collection of general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories (4,000 volumes) has been assembled. A complete dictionary catalog is provided, and 30 periodical indexing services are available. The subscription list includes nearly 600 magazines and journals. Twenty-year back files of 200 particularly useful periodicals have already been bound for permanent reference use and are available on open shelves. An extensive vertical-file pamphlet collection and excellent microfilm reading facilities are also provided.

The Library has two service areas. The open-shelf Main Reading Room is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities, in addition to well-lighted study space for 800 students at 100 large tables. The Reserve Book Station, located near the street car line, makes assigned reading materials conveniently available. The Library staff of 23 includes 9 trained librarians, with academic rank, and 14 full-time clerks. Library hours are 8:30 a.m. to 5 p.m., Monday through Friday, and 9 a.m. to 12 noon on Saturday.



Window shopping

UNIVERSITY BOOKSTORE

The University Bookstore is operated on a cooperative basis to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

Students and faculty members may participate in a "share-the-profit" plan at the end of each year if the store realizes a profit for the operating year.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 5 p.m. During the registration period, the Bookstore is open from 8 a.m. to 6 p.m.

Stop for supplies at the Bookstore



Mealtime in the cafeteria



FOOD SERVICE

The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the Pier. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the Pier, adjacent to the reception lounge. In addition, a dining room at the east end of the Pier offers cafeteria-style service to members of the faculty and staff.

Stop at the soda fountain



COLLEGES
Curricula and
COURSES

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be begun in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Hygiene—One semester. Credit may be obtained by a proficiency examination. (Veteran students who have completed basic training in the Army, Navy, Marine Corps, or Coast Guard receive credit for hygiene). Transfer students having sophomore standing are exempt from hygiene.

2. Physical Education—Four semesters. Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. (Veteran students who have completed basic training while in the service are exempted.)

Physical education may be deferred only by written request through the physical Education Department which will make recommendation to the dean of the student's college.

3. Rhetoric—Two semesters (Rhetoric 101 and 102). All students entering the University as freshmen direct from secondary schools are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

Grade-Point Average

In computing the grade-point average, weighted values are given to the grades as follows: A-5 grade points; B-4; C-3; D-2; E(failure)-1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn 3 hours of A, 6 of B, 3 of C, and 2 of D, the computation of your grade-point average is as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	52
	<hr/>		<hr/>	<hr/>
	14		52	14 = 3.71

Your grade-point average is 3.71.

Robert P. Hackett, Associate Dean
Commerce and Business Administration



COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Through knowledge of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for lower classmen. Though the factual contents of many of the courses are directly useful in specific vocations—accounting, banking, selling, teaching—students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible to avoid the narrowing effects of early specialization.

The program for the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism and Communications. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

All of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University, provided proper prerequisites are met.

SUMMARY OF REQUIREMENTS FOR GRADUATION

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must (1) meet the general University requirements with respect to registration, residence, scholarship, and fees; (2) have a minimum of 130 semester hours of credit, including credit for the required work in rhetoric, hygiene, physical education, and military science, and including a minimum of 60 hours in courses given in the College of Commerce; and (3) complete the requirements of one of the fields of concentration (accountancy, banking and finance, commerce and law, commercial teaching, economics, industrial administration, management, marketing, public affairs, or secretarial training) with an average grade of not less than "C" in all courses counted toward graduation, whether taken at the University of Illinois or elsewhere.

ELECTIVES

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include management, marketing, history, philosophy, political science, psychology, and sociology. Any advice desired on these electives may be obtained at the office of the dean or from the advisor at the time of registration.

COMMERCE AND LAW

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business or corporation law. The first two years are the same as the program for the Lower Division shown on page 38. The third year includes requirements



Solving problems in statistics

of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 100 hours in the College of Commerce and Business Administration and 30 hours in the College of Law, including all required courses, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

COMMERCIAL TEACHING

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. This program is based primarily on the Lower Division program shown on the following page with adjustments not only to comply with the state laws but to prepare the student in the best way possible for a teaching career. Students interested in this program should consult with the dean of the college.

PRE-JOURNALISM

Students desiring to enter the School of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The two-year program for this purpose is the same as that shown on the following page.

PROGRAM FOR THE LOWER DIVISION¹

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 101 or 102—Principles of Accounting	3 or 2	Accy. 105—Accounting Procedure	3
Econ. 101—Economic History of U.S.	3	Econ. 100—Introduction to Business	3
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Science and/or College Algebra ² ..	5-8	Science and/or College Algebra ² ..	3-5
Physical Education	1	Hygiene 102 or 105	2
Electives	1-4	Physical Education	1
<i>Total</i>	15-18	<i>Total</i>	15-17

Second Year

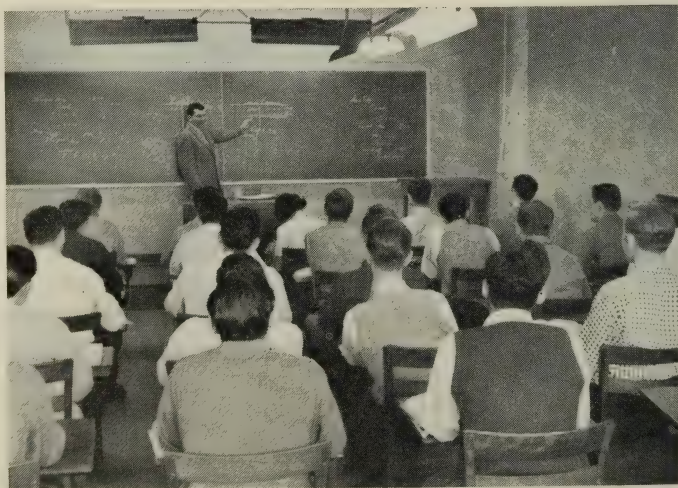
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 106—Cost Accounting	3	Accy. 108—Intermediate Accounting	3
Econ. 102—Principles of Economics	3	Econ. 103—Principles of Economics	3
Language or Literature ³	4	Language or Literature ³	4
Rhet. 151—Business Letter Writing	2	Econ. 170—Elementary Statistics ..	3
Speech 101—Effective Speaking ..	3	Physical Education	1
Physical Education	1	Electives	1-4
Electives	0-2	<i>Total</i>	15-18
<i>Total</i>	16-18		

¹The Lower Division program applies to all fields except commercial teaching. For the requirements in that field consult with the dean of the college.

²Mathematics and Science—All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.

³Language—Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college.

Lesson in accountancy



Frederick W. Trezise, Associate Dean
Engineering Sciences



COLLEGE OF ENGINEERING

To prepare men for professional work in engineering and for responsible positions of a technical and semi-technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. While each student pursues a curriculum of his own choice according to the field of his particular interest, all students must take certain courses. Basic courses in mathematics, chemistry, physics, rhetoric, and general engineering drawing are required in the first two years.

At the Chicago Undergraduate Division the first two years of courses are offered in the following fields: aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, mechanical engineering, metallurgical engineering, and mining engineering. Those few advanced courses which are not available here are properly noted.

Instruction in all courses is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois in his third year.

SUMMARY OF REQUIREMENTS FOR GRADUATION

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula. Each curriculum requires a minimum of 136 semester hours of credit, not counting the required work in military science and physical education.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work, consisting of 30 to 36 semester hours, acceptable to the faculty of this college, providing plans have been made looking toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

ELECTIVES AND OPTIONS

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences, the College of Commerce, and certain courses in the College of Engineering. Technical electives include practically all courses in the College of Engineering not required in the student's curriculum, except all elementary work in drawing.

Departmental electives and technical options are restricted to courses of a technical character as listed under this classification by each department. Options are groups of related courses in a special field of subject matter.

Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by curriculum options, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

COMMON PROGRAM FOR FRESHMAN

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on the following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Eng. 100—Engineering Lectures..	0	Chem. 104—Chemistry of the	
Chem. 102 or 103—General		Metallic Elements	4
Chemistry	3 or 4	G.E.D. 102—Descriptive Geometry	4
G.E.D. 101—Elements of Draw-		Math. 122—Analytic Geometry ..	4
ing; or G.E.D. 104—Advanced		Rhet. 102—Rhetoric and	
Drawing	4	Composition	3
Math. 112—College Algebra	3	Hygiene 102 or 105.....	2
Math. 114 — Plane Trigonometry;		Physical Education	1
or Math. 115—Advanced Trig-			
onometry	2	<i>Total</i>	18
Rhet. 101—Rhetoric and			
Composition	3		
Physical Education	1		
<i>Total</i>	16-17		

CURRICULUM IN AERONAUTICAL ENGINEERING

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 103—Aircraft Drafting and		Math. 142—Integral Calculus....	3
Lofting	3	Phys. 104—General Physics	5
Math. 132—Differential Calculus.	5	Speech 101—Principles of Effective	
M.E. 182—Manufacturing		Speaking or Non-Technical	
Processes	3	Elective	3
Phys. 103—General Physics	5	T.A.M. 156—Analytical Mechanics	
Physical Education	1	(Statics and Dynamics).....	5
		Physical Education	1
<i>Total</i>	17	<i>Total</i>	17



Light experiment in physics

CURRICULUM IN CERAMIC ENGINEERING

First Year¹

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Cer. E. 101—Introduction to Ceramic Engineering ²	3	Cer. E. 102—Ceramic Processes and Equipment ²	3
Chem. 123—Quantitative Analysis for Engineers ³	5	Geol. 130—General Mineralogy ² ..	3
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus....	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	19	Physical Education	1
		<i>Total</i>	17

CURRICULUM IN CHEMICAL ENGINEERING

This curriculum is administered by the College of Liberal Arts and Sciences. See pages 54 and 55.

CURRICULUM IN CIVIL ENGINEERING

First Year⁴

Common Program for Freshmen (page 41).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 103—Route Surveying ⁵	3	C.E. 235—Plain Concrete.....	2
C.E. 160—Building Construction. 3		Geol. 150—Engineering Geology ⁶ . 3	
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus... 3	
Phys. 103—General Physics..... 5		Phys. 104—General Physics..... 5	
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	17	Econ. 108—Elements of Economics; or Speech 101—Principles of Effective Speaking	3
		Physical Education	1
		<i>Total</i>	19

¹Common Program for Freshmen (page 41), except that Chem. 105 and Math. 117-127 are substituted for Chem. 104 and Math. 112, 114, and 122.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

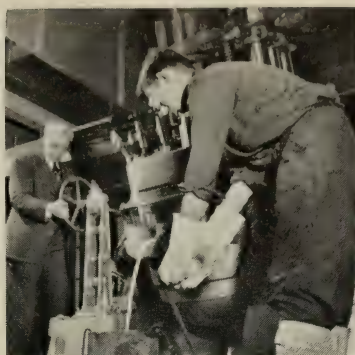
³Not offered at Chicago Undergraduate Division; substitute Chem. 122—Elementary Quantitative Analysis.

⁴C. E. 101 and 102 are required courses which will be taught only at the summer surveying camp following the freshman year.

⁵Offered during the fall semester only.

⁶Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geol. 150 (3 hours), Econ. 108 or Speech 101 (3 hours), and approved electives (2 hours).

Metal pouring in the foundry



CURRICULUM IN ELECTRICAL ENGINEERING

First Year

Common Program for Freshmen (page 41).

Second Year

FIRST SEMESTER	HOURS
Econ. 108—Elements of Economics	3
Math. 132—Differential Calculus	5
Speech 101—Principles of Effective Speaking	3
Phys. 103—General Physics	5
Physical Education	1
<i>Total</i>	17

SECOND SEMESTER	HOURS
E.E. 126—Electric Circuits and Fields	4
Math. 142—Integral Calculus	3
Phys. 104—General Physics	5
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Physical Education	1
<i>Total</i>	17

CURRICULUM IN ENGINEERING PHYSICS

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

First Year

Common Program for Freshmen (page 41) except that substitution of Chem. 106 for Chem. 104 is advised.

Second Year¹

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
German or Approved Elective....	4	German or Approved Elective....	4
Math. 132—Differential Calculus.	5	Math. 142—Integral Calculus ...	3
Phys. 103—General Physics.....	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechan-	
Approved Elective	3	ics (Statics)	2
		Physical Education	1
		Approved Elective	3
<i>Total</i>	18	<i>Total</i>	18

CURRICULUM IN GENERAL ENGINEERING

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporation finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized

¹The election of Chem. 110, 124, and 234 is advised. Students wishing to emphasize geophysics should elect most or all of the technical options in geology. Five hours must be approved non-technical electives.



At work on a drawing problem

engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations. A sales engineering option can be readily planned within the elective framework of the curriculum.

First Year

Common Program for Freshmen (page 41).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 108—Elements of Economics	3	Speech 101—Principles of Effective Speaking	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 183—Materials Casting; or		Phys. 104—General Physics	5
C.E. 115—General Surveying ¹	3	T.A.M. 150—Analytical Mechanics (Statics)	2
Phys. 103—General Physics	5	C.E. 115—General Surveying ¹ ; or	
Physical Education	1	M.E. 183—Materials Casting	3
		Physical Education	1
<i>Total</i>	<i>17</i>	<i>Total</i>	<i>17</i>

CURRICULUM IN MECHANICAL ENGINEERING

First Year

Common Program for Freshmen (page 41).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 171—Mechanism	2	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 183—Materials Casting; or		M.E. 184—Metal Processing; or	
M.E. 184—Metal Processing	3	M.E. 183—Materials Casting	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	Physical Education	1
<i>Total</i>	<i>16</i>	<i>Total</i>	<i>17</i>

¹C.E. 115 is not given at the Chicago Undergraduate Division; must be taken at Urbana.

CURRICULUM IN METALLURGICAL ENGINEERING

First Year

Common Program for Freshmen (page 41) except that Chem. 105 and G.E.D. 106 are substituted for Chem. 104 and G.E.D. 101.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 123—Quantitative Analysis for Engineers ¹	5	Math. 142—Integral Calculus ...	3
Math. 132—Differential Calculus. 5		Phys. 104—General Physics	5
Phys. 103—General Physics	5	Met. E. 150—Introduction to Metallurgy ²	3
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	16	Physical Education	1
		Approved Elective	3
		<i>Total</i>	17

CURRICULUM IN MINING ENGINEERING

First Year

Common Program for Freshmen (page 41).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 150—Geology for Engineers. 3		Geol. 130—General Mineralogy ² ..	3
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus ...	3
Min. E. 151—Elements of Mining ² 4		Min. E. 152—Fuels ²	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	18	Physical Education	1
		<i>Total</i>	17

ARCHITECTURE

(Offered under the College of Engineering)

The curriculum in architecture is a five-year course and is offered with two optional programs. The work for the first year is identical. A field of specialization is selected in the second year.

The general option places the major emphasis on architectural design and includes a substantial program in architectural construction. While the esthetic is emphasized, basic preparation in liberal and scientific fields

¹Not offered at Chicago Undergraduate Division; substitute Chem. 122—Elementary Qualitative Analysis.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The construction option (architectural engineering) offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes $3\frac{1}{2}$ years of architectural design, free-hand drawing, and the history of architecture, the student who is primarily interested in construction can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business, engineering, language, and literature. It also provides sufficient training for independent practice as an architectural engineer.

ELECTIVES

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to freshmen. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131; Botany 100, 101; Geography 101, 104, 105; Geology 101; Biology 101; Speech 101, 141; English 111, 112; Accountancy 101. Courses with prerequisite of sophomore standing: Rhetoric 152; Economics 108; English 131; Political Science 150, 151; Sociology 100.

Class in architectural design



FIVE-YEAR CURRICULUM IN ARCHITECTURE

Students entering as freshmen in September, 1949, follow the five-year curriculum in architecture and architectural engineering as outlined below.

First Year

FIRST SEMESTER	HOURS
G.E.D. 107—Architectural Projections	2
Art 181—Freehand Drawing	2
Rhet. 101—Rhetoric and Composition	3
Math. 117—Combined Freshman Mathematics	5
Hygiene 102 or 105.....	2
Physical Education	1
<i>Total</i>	15

SECOND SEMESTER	HOURS
G.E.D. 108—Architectural Projections	2
Art 182—Freehand Drawing	2
Rhet. 102—Rhetoric and Composition	3
Math. 127—Combined Freshman Mathematics	4
Arch. 101—Introduction to Architecture	3
Physical Education	1
<i>Total</i>	15

Second Year

FIRST SEMESTER	HOURS
Arch. 131—Architectural Design..	3
Art 183—Freehand Drawing	2
Arch. 141—Materials and Methods of Construction I.....	2
Phys. 101—General Physics	5
Elective	3
Physical Education	1
<i>Total</i>	16

SECOND SEMESTER	HOURS
Arch. 132—Architectural Design..	3
Art 184—Freehand Drawing	2
Arch. 142—Materials and Methods of Construction II.....	2
Arch. 113—Architecture and Civilization of the Early Mediterranean Areas	2
T.A.M. 171—Elementary Mechanics	3
Elective	3
Physical Education	1
<i>Total</i>	16

FIVE-YEAR CURRICULUM IN ARCHITECTURAL ENGINEERING

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS
Arch. 131—Architectural Design..	3
Art 183—Freehand Drawing	2
Arch. 141—Materials and Methods of Construction I	2
Phys. 101—General Physics	5
Math. 137—Differential Calculus. 3	
Physical Education	1
<i>Total</i>	16

SECOND SEMESTER	HOURS
Arch. 132—Architectural Design..	3
Art 184—Freehand Drawing	2
Arch. 142—Materials and Methods of Construction II.....	2
Arch. 113—Architecture and Civilization of the Early Mediterranean Areas	2
Math. 147—Integral Calculus ...	3
T.A.M. 150—Analytical Mechanics	2
Physical Education	1
<i>Total</i>	15

**Harold W. Bailey, Associate Dean
Liberal Arts and Sciences**



COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years or commonly to change his vocational objective without additional time. Such a change after the beginning of the junior year usually cannot be made without loss of time.

It is assumed that upon completion of the two-years' work at the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, pre-medicine, pre-dentistry, pre-nursing, teacher-training, pre-law, pre-veterinary medicine, and pre-journalism. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum

requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in a field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of adviser, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 51 and 52 in their first four semesters in the University.

SUMMARY OF REQUIREMENTS FOR GRADUATION

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Hygiene—Hygiene 102 or 105.

Physical Education—4 semesters.

Rhetoric—Rhet. 101 and 102 (If C or D in Rhet. 102, student must pass qualifying examination or take Rhet. 200).

Foreign Language—Equivalent of two years in same language.

U.S. History—One unit of American History or History 151 and 152.

Mathematics—One unit of Algebra and one unit of Plane Geometry or Math. 101 and Math. 102.

Major—20 approved hours in one department.

Minor(s)—20 approved hours in one or two departments.

Advanced hours—30 hours of credit in courses not open to freshmen and

sophomores.

Residence—Either first 88 hours uninterrupted, or last 30 hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the last 30 hours must be taken at Urbana.

Average—3.0 (C) minimum average.

Biological Sciences¹8 hours.

Physical Sciences¹8 hours.

Humanities¹8 hours.

Social Sciences¹8 hours.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of D.

Required Subjects

A. Foreign Language—To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed. A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equiva-

¹The eight hours must be taken in approved sequence.

lent to that resulting from four semesters of study of a foreign language commenced in college. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portugese 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

B. Group Requirements¹—To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

¹For students who entered prior to September 1, 1946, the requirements were:

(a) Liberal Arts. A total of fifteen hours chosen from at least three of the following subjects including one course in English or foreign literature or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work or its equivalent), economics, history, philosophy, political science, and sociology.

(b) Sciences. A total of fifteen hours chosen from at least three of the following subjects including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.



Experiments in chemistry

Students who entered college on or after September 1, 1946, are required to complete the following group requirements:

1. *Basic Knowledge*—One unit of American history or Hist. 151 and 152. One unit of algebra and one unit of plane geometry or Math. 101 and 102.
2. *General Education*—An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

ELECTIVES

1. *Liberal Arts and Sciences*—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*—Electives totaling as much as but not more than 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list approved by the faculty:

Accountancy—A total of 6 hours (not including more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics—A total of 6 hours.

Architecture—A total of 15 hours.

Art—A total of 15 hours.

Business Law—A total of 6 hours.

Business Organization and Operation—A total of 6 hours. Typewriting and shorthand may not be counted for credit.

Economics—All courses.

Education—A total of 20 hours.

Engineering—A total of 10 hours.

Forestry—A total of 3 hours.

Home Economics—All courses.

Horticulture—A total of 6 hours.

Hygiene—Hygiene 102 or 105 (2 hours).

Journalism—A total of 10 hours.

Landscape Architecture—A total of 7 hours.

Law—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken with the advice of the Dean of the College of Law, and provided further that if any such student desires to take more than 6 hours of law work he must also register in the College of Law.

Library Science—A total of 10 hours.

Military Science—A total of 8 hours in advanced courses.

Music—A total of 15 hours approved by the Director of the School.

Physics—All courses.

CHEMISTRY AND CHEMICAL ENGINEERING

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 117, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing.

CURRICULUM IN CHEMISTRY

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5	Chem. 108—General Chemistry and Qualitative Analysis.....	5
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
German or French.....	4	German or French.....	4
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	—	Hygiene 102 or 105.....	2
		Physical Education	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 122—Quantitative Analysis	5	Chem. 234—Organic Chemistry ⁴ ..	5
Math. 137—Calculus	3	Math. 147—Calculus	3
Phys. 103—General Physics.....	5	Phys. 104—General Physics.....	5
Physical Education	—	Physical Education	—
Electives ³	3	Electives ³	2-5
<i>Total</i>	16	<i>Total</i>	15-18

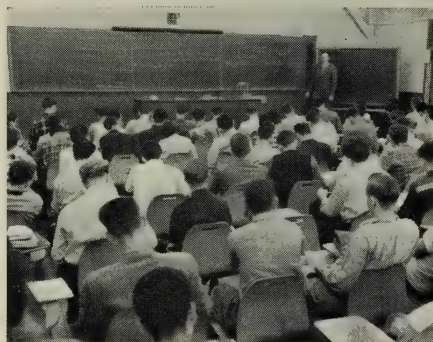
¹All students with entrance credit in chemistry are required to take a proficiency examination before registering for Chem. 107. Those who do not show the necessary proficiency will be placed in Chem. 101 or 102, after which they will take Chem. 106 and 110. For students without entrance credit in chemistry, the required sequence is Chem. 101, 106, and 110.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Suggested courses for electives are: Zool. 101, 107, 132; Biology 101, 131, 132; Bot. 100, 101; Engl. 121, 122; Geol. 130, 150; Hist. 151, 152; Bact. 104, 105; German or French. Of the total electives for graduation, at least 21 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments. With the permission of the adviser, students may substitute courses in physics, mathematics, or other closely allied sciences for a portion of the 21 hours in advanced chemistry courses.

⁴Not given at Chicago Undergraduate Division.

Lecture in science



FOUR-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5
Math. 117—Freshman Mathematics ²	5
German, French, or Russian.....	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	
<i>Total</i>	17

SECOND SEMESTER	HOURS
Chem. 108—General Chemistry and Qualitative Analysis.....	5
Math. 127—Freshman Mathematics ²	4
German, French, or Russian.....	4
Rhet. 102—Rhetoric and Composition	3
Hygiene 102 or 105.....	2
Physical Education	
<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS
Chem. 122—Quantitative Analysis	5
Math. 137—Calculus	3
Phys. 103—General Physics.....	5
G.E.D. 106—Elements of Drawing	3
Physical Education	
<i>Total</i>	16

SECOND SEMESTER	HOURS
Chem. 240—Physical Chemistry ³ ..	3
Chem. 241—Physical Chemistry Lab. ³	1
Math. 147—Calculus	3
Phys. 104—General Physics.....	5
Ch.E. 261—Stoichiometry ³	3
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	
<i>Total</i>	17

¹Students who do not qualify for Chem. 107 automatically go into the five-year curriculum.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Not given at Chicago Undergraduate Division.

OPTIONAL FIVE-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 or 102—General Chemistry	5 or 3	Chem. 106—Inorganic Chemistry. 5	
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
Rhet. 101—Rhetoric and Composition	3	German, French, or Russian.....	4
German, French, or Russian.....	4	Rhet. 102—Rhetoric and Composition	3
Physical Education		Hygiene 102 or 105.....	2
		Physical Education	
Total	15-17	Total	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 110—Qualitative Analysis. 5		Chem. 122—Quantitative Analysis 5	
Math. 137—Calculus	3	Math. 147—Calculus	3
German, French, or Russian.....	4	Phys. 104—General Physics.....	5
Phys. 103—General Physics.....	5	German, French, or Russian.....	4
Physical Education		Physical Education	
Total	17	Total	17

PRE-MEDICAL CURRICULUM

This curriculum, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

Pre-medical students must maintain a 3.5 average during the first two semesters in the curriculum. By the end of the third semester the average for the three semesters must be raised to 3.75 and this average must be maintained. Students who fail to meet these minimum requirements will be transferred to the general curriculum.

A student transferring to this college with advanced standing must meet the scholastic requirements at the level at which he transfers, in terms of the University's grading system, in order to be admitted to the pre-medical curriculum.

¹Students who qualify for Chem. 107 should take the Chem. 107, 108, 122, 240 sequence rather than Chem. 101, 106, 110, 122 and thus have five additional hours of advanced electives.
²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

A student who enters the College of Medicine at the University of Illinois, having met the language requirement and the appropriate group requirements in Group B, pages 51 and 52, may receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences on completion of the first year of medicine. No student may receive credit toward this degree for more than one year of work done in any other college or university.

Other factors being equal, students at the University of Illinois who have completed the pre-medical curriculum with an average of 4.3 or better, will be given preferential consideration by the Committee on Admissions, provided that at least the second and third years have been done within the University.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	<i>Semester Hours</i>
Chemistry (including, in addition to introductory courses, four hours of organic chemistry, three hours of quantitative analysis, and three hours of physical chemistry—Chem. 101 or 102, 105, 122, 133, and 247).....	16
Physics (including laboratory work in mechanics, heat, sound, light, and electricity—phys. 101 and 102).....	8
Biology (including general ¹ and vertebrate zoology and general embryology)	10
Rhetoric and Composition (Rhet. 101 and 102).....	6
Modern Language (French, German, or Spanish, etc.).....	6
Social Sciences Electives (including courses from at least two of the following fields: anthropology, economics, history, philosophy, political science, psychology, and sociology).....	14
Electives	28
Total	88

PRE-DENTAL CURRICULUM

Students applying for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating class. They must maintain at all times in the curriculum a minimum average of 3.5. The work covered by the first two years of the pre-medical curriculum enables students to meet the requirements for admission to the University of Illinois College of Dentistry. Quantitative analysis and physical chemistry are recommended as electives. Since the function of the pre-dental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours also include history, economics, sociology, philosophy, and at least one modern language.

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

The specific requirements for admission to the College of Dentistry are as follows:

	<i>Semester Hours</i>
Chemistry (including four hours of organic chemistry—Chem. 101 or 102, 105, and 133).....	12
physics (Phys. 101 and 102).....	6
Biology (including general zoology ¹).....	6
Rhetoric and Composition (Rhet. 101 and 102).....	6
Electives (including history, economics, sociology, philosophy, and at least one modern language; excluding military, hygiene, and physical education).....	30
Total	60

Pre-dental students who wish to be candidates for the degree of Bachelor of Science in Dentistry on the completion of the second year in the College of Dentistry should consult the College Catalog.

PRE-NURSING CURRICULUM

The University of Illinois offers a program leading to a Bachelor of Science degree in Nursing with the University of Illinois—Cook County School of Nursing and in affiliation with Michael Reese, Presbyterian, and St. Luke's Schools of Nursing. The degree program is in two parts, a two-year pre-professional course and a 30 to 36-month professional program. Following the completion of the 60 semester hours of prescribed college work outlined below, students must enroll for professional education and clinical experience in nursing in one of the affiliated schools of nursing.

Graduate nurses may qualify for the degree provided that (1) they are eligible for admission to the pre-nursing curriculum at the University; (2) they are graduates of the three-year program at one of the affiliated schools of nursing; and (3) they matriculated in one of the affiliated schools of nursing after the date on which it was accredited by the National League of Nursing Education.

Students entering the pre-nursing curriculum must meet the requirements for admission to the general curriculum of the College of Liberal Arts and Sciences, and, in addition, present credit in one year of elementary algebra and one year of plane geometry. Admission to the curriculum is restricted to students 16 to 28 years old. Students 28 to 33 years old may enter subject to approval of the nursing advisory committee. The specific requirements of the pre-nursing curriculum are as follows:

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

	<i>Semester Hours</i>
Rhetoric and Composition	6
Social Sciences (including the equivalent of a course in sociology and a course in psychology)	12
Humanities	6
Chemistry (one year of general and one semester of organic chemistry)	10
Biological Sciences (including a course in bacteriology)	8
Physics (a course specially designed for nurses or a year of college physics)	4
Electives (one year of foreign language recommended)	14
Physical Education (four semesters)	—
Total	60

Special advisers will confer with students enrolling in the pre-nursing curriculum before each student first registers.

PRE-VETERINARY CURRICULUM

The two-year pre-veterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating class. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	<i>Semester Hours</i>
Chemistry (including organic and quantitative analysis—Chem. 101 or 102, 105, 122, and 133)	16
Biological Sciences ¹ (including botany and general zoology)	8
Physics (including laboratory—Phys. 101 and 102)	8
Foreign Language	6
Rhetoric and Composition (Rhet. 101 and 102)	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences.	9
Free electives	7
Total	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in additional time.

¹The biological sciences requirement may be met by Biology 101 and 131.

The unseen world — microbiology



PRE-LAW CURRICULUM

The pre-legal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Bureau at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law should comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours.

The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

HOME ECONOMICS

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

TEACHER-TRAINING CURRICULA

Of the curricula in teacher-training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

Prospective students in teacher-training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

PRE-JOURNALISM CURRICULUM

Students planning to enter the School of Journalism and Communications are advised to register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism and Communications as a candidate for a degree, a student must have completed 56 semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military science, with an average grade of 3.5 (one-half of the college work with an average grade of "B" and one-half with an average grade of "C"). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, twelve hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism and Communications offers the following curricula: editorial, advertising, publication management, and radio.



Boxing

PHYSICAL EDUCATION

All students entering the University as freshmen are required to obtain four hours of credit in physical education. Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses such as adapted sports and prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for 1½ hours. All general courses in physical education carry one hour of credit.

Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those

Archery



Men's gym



entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Women are offered instruction in elementary, intermediate, and advanced rhythms, individual gymnastics, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, games for school and playground, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

Men students entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, professional orientation, camp counseling, and a basic physical fitness program.

Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempted from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce.

In addition to the service program, the Physical Education Department will offer, for the first time this year, the first two years of the professional training curricula leading to the degrees of Bachelor of Science in Physical Education, in Health Education, and in Recreation. Complete information concerning the professional training curricula is available at the office of the Director of Physical Education.

ARMY RESERVE OFFICERS' TRAINING CORPS

To provide an opportunity for students at the Chicago Undergraduate Division to work toward reserve commissions in the United States Army, a Basic Army Reserve Officers' Training Corps program is being offered for the first time during the 1950-51 school year. During the first year the program is limited to 200 cadets.

The Basic Course consists of formal instruction of three hours a week, two hours of classroom work and one of drill. The first year gives a

broad introduction to the Army and is common to all branches. This includes Military Science 101 and 102 at the freshman level. The second year of instruction consists of training in the tactics and techniques of the selected unit and training in leadership, drill, and exercise of command. Sophomore-level courses are Military Science 133 and 134 or Military Science 163 and 164.

Students who have successfully completed three years of accredited junior R.O.T.C. have the equivalent of one year's senior R.O.T.C. training. Students who have less than one year but more than six months of honorable active military wartime service in any branch of the Armed Forces have the equivalent of one year's senior R.O.T.C. training. Those who have had one year of such training have the equivalent of the two-year Basic Course in senior R.O.T.C.

Requirements for Application. All male students, with the exceptions noted below, may make application for the Basic Course. If credit is to be counted toward graduation, the scheduled Basic Course of two years must be successfully completed. *Exceptions:* A student who is not a citizen of the United States, or a student who holds a commission, or a certificate therefore, in the Officers' Reserve Corps, Air Force, Army, Navy, or Marine Corps will not be accepted.

Units, Staff, and Equipment. Units at the Chicago Undergraduate Division are Antiaircraft and Corps of Engineers. In both units, the cadet is familiarized with fundamentals of theory and trained in the use of equipment to adapt to ordinary duty assignments or to continue further training. The R.O.T.C. course offers a broad background in military tradition. In addition, it fosters and demands ideals of character such as integrity, discipline, and self reliance, as well as the cooperation necessary to leadership and sound personal relationships.

Experienced Army officers and personnel are detailed by the Department of the Army for the guidance and instruction of cadets. The senior officer is designated as Senior Instructor of the Military Department. In the military organization he is also Commandant of Cadets.

Cadets have the benefit of modern equipment, graphic and audio-visual training aids, and instructional materials. Full use is made of training equipment and aids in keeping with the latest trend in instructional principles in military training. Uniforms, weapons, and materiel are furnished by the Department of the Army.

COURSES OF INSTRUCTION

Accountancy

101. PRINCIPLES OF ACCOUNTING. Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 101, and should register in Accountancy 102. I, II; 3. Seniors receive only two hours credit.
102. PRINCIPLES OF ACCOUNTING. Similar to Accountancy 101. For those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 101 are permitted to register in Accountancy 102 and receive credit as in Accountancy 101 if their final grade is "C" or above. I, II; 2. Seniors receive only one hour credit.
105. ACCOUNTING PROCEDURE. Relation of business documents to the accounts; fundamentals of partnership and corporation accounting; business forms and records; financial statement analysis. I, II; 3. Seniors receive only two hours credit. Prerequisite: Accountancy 101 or 102.
106. ELEMENTARY COST ACCOUNTING. Accounting for production management. Principles and methods of accounting for managerial control of costs of production. I, II; 3. Prerequisite: One year of accountancy; sophomore standing; credit or registration in Economics 102 or 108.
108. INTERMEDIATE ACCOUNTING. Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization; interpretation of financial statements and analysis of the principal accounts represented therein. I, II; 3. Prerequisite: Credit or registration in Accountancy 106.

Architecture

101. INTRODUCTION TO ARCHITECTURE. Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Introduction to color. Illustrated lectures and laboratory. I, II; 3.
113. ARCHITECTURE AND CIVILIZATION OF THE EARLY MEDITERRANEAN AREAS. An analysis of space and form in Egypt, West Asia, Greece, and Rome. I, II; 2. Prerequisite: Architecture 101 and registration in Architecture 131.
114. ARCHITECTURE AND CIVILIZATION OF EUROPE AND ISLAM, A.D. 300 TO 1200. I, II; 2. Prerequisite: Architecture 113.
131. ARCHITECTURAL DESIGN. Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. I, II; 3. Prerequisite: Architecture 101 and registration in General Engineering Drawing 108.
132. ARCHITECTURAL DESIGN. Continuation of the fundamentals of architectural design. I, II; 3. Prerequisite: Architecture 131, or consent of instructor.
133. ARCHITECTURAL DESIGN. Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. I, II; 3. Prerequisite: Architecture 132.
134. ARCHITECTURAL DESIGN. Continuation of Architecture 133. I, II; 3. Prerequisite: Architecture 133.
141. MATERIALS AND METHODS OF CONSTRUCTION I. Wood frame construction as used in houses; manufacture and performance characteris-

- tics of materials; framing systems; typical details; finishing materials. Lectures, drawings. I, II; 2. Prerequisite: Registration in Architecture 131.
142. **MATERIALS AND METHODS OF CONSTRUCTION II.** Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures, drawings. I, II; 2. Prerequisite: Architecture 141.
144. **MATERIALS AND METHODS OF CONSTRUCTION IV.** Modular dimensioning; prefabrication; thermal and sound insulation; industrial structures; wide span systems; architectural acoustics. Lectures, drawings. I, II; 2. Prerequisite: Architecture 143.
214. **ARCHITECTURE AND CIVILIZATION OF MEDIEVAL EUROPE AND ISLAM, A.D. 300 TO 1500.** II; 3. Prerequisite: Architecture 113. Architecture 214 must be taken by students in the five-year curriculum in place of Architecture 114.

Art

111. **INTRODUCTION TO ANCIENT AND MEDIEVAL ART.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I, II; 3.
112. **INTRODUCTION TO RENAISSANCE AND MODERN ART.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. I, II; 3.
115. **ART APPRECIATION.** An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students. I, II; 3. Prerequisite: Sophomore standing, or consent of instructor.
181. **FREEHAND DRAWING.** Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2.
182. **FREEHAND DRAWING.** Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 181.
183. **FREEHAND DRAWING.** Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 182.
184. **FREEHAND DRAWING.** Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 183.

Biological Sciences

101. **FUNDAMENTALS OF BIOLOGY.** This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdom, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures, laboratory, and quiz. I, II; 4. Seniors receive only three hours credit.
111. **GENERAL BOTANY.** A survey of the plant kingdom. The morphology and physiology of representative plants from Thallophytes through Angiosperms are considered in building up a system of natural classification based upon phylogenetic relationships. The importance of plants in the system of nature and human economics is emphasized. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
115. **INTRODUCTORY SYSTEMATIC BOTANY (PLANT TAXONOMY).** Classification and identification of flowering plants, with special reference

- to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101 and 111.
116. **ECONOMIC BOTANY.** Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Forest, drug, food textile, beverage, and other industrial institutions. Lectures and discussions. II; 3. Prerequisite: Biology 101 and 111.
 121. **MICROBIOLOGY.** A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological, and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101.
 126. **ADVANCED GENERAL BACTERIOLOGY.** General technic, special apparatus, and methods. Lectures, laboratory, and quiz. II; 4. Prerequisite: Biology 101 and 121.
 131. **GENERAL ZOOLOGY.** A survey of the animal kingdom, the phylogenetic relationships of animals and classification. Emphasis is placed upon economically important and parasitic forms. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
 132. **COMPARATIVE VERTEBRATE ANATOMY.** Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their function and evolution. Lectures, laboratory, and quiz. I, II; 5. Prerequisite: Biology 101 and 131, or Biology 101 with a grade of "B".
 136. **BIRD STUDY.** Native birds; their identification, food relations, seasonal distribution, migration activities, economic importance, and conservation. II; 2.
 141. **VERTEBRATE PHYSIOLOGY.** This course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
 142. **PHYSIOLOGY OF THE NERVOUS SYSTEM.** This course is planned to give an understanding of the physiological activities by which the nervous system carries out its functions. Recommended as background for students of psychology, education, or biological sciences. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101 and 141.
 333. **VERTEBRATE EMBRYOLOGY.** The development of the vertebrate body and its organs. Lectures, laboratory, and quiz. I, II; 5. Prerequisite: Biology 101 and 132; junior standing.

Chemistry

101. **GENERAL CHEMISTRY.** For students who have no entrance credit in high school chemistry. I, II; 5. Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 101. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
102. **GENERAL CHEMISTRY.** For all students who have one year of high school chemistry. I, II; 3. Seniors receive only two hours credit. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 102 if they complete the course with a grade of "C" or higher. Prerequisite: One unit of entrance credit in chemistry or equivalent.

103. **GENERAL CHEMISTRY.** Lectures, recitations, and laboratory. For engineering students who have had no chemistry. I, II; 4. Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit in Chemistry 103. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
104. **CHEMISTRY OF THE METALLIC ELEMENTS.** Lectures, recitations, and laboratory. Limited to students in the engineering curricula. I, II; 4. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105 or 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
105. **INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS.** Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 104 or 106. I, II; 5. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
106. **INORGANIC CHEMISTRY.** Metallic elements. For students in the chemistry, ceramics, and ceramic engineering curricula and for chemistry majors who are not pre-medical students. I, II; 5. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104 or 105. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
107. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. I; 5. Seniors receive only three hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.
108. **GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS.** For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. II; 5. Seniors receive only three hours credit. Prerequisite: Chemistry 107.
110. **QUALITATIVE ANALYSIS.** Qualitative analysis of metals and inorganic compounds. Open to all students; required of students whose major is chemistry or chemical engineering and those registered in the curriculum of chemistry except students who qualify for Chemistry 107 and 108. I, II; 5. Prerequisite: Chemistry 106.
122. **ELEMENTARY QUANTITATIVE ANALYSIS.** Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. I, II; 5. Prerequisite: Chemistry 104, 105, or 106.
133. **ELEMENTARY ORGANIC CHEMISTRY.** To fulfill the requirements for pre-medical, pre-dental, pre-veterinary, dietetics, and home economics students. Lectures, recitations, and laboratory. I, II; 5. Prerequisite: Chemistry 105 or 110.
196. **GENERAL CHEMISTRY.** Taken with Chemistry 197, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the general education requirement in physical sciences for Liberal Arts students. I; 4. Prerequisite: Two units of high school mathematics.
197. **GENERAL CHEMISTRY.** Taken with Chemistry 196, this constitutes a year course for students who do not expect to take any more chemistry. Satisfies the general education requirement in physical sciences for Liberal Arts students. II; 4. Prerequisite: Chemistry 196.
247. **ELEMENTARY PHYSICAL CHEMISTRY.** For pre-medical students only. Lectures and laboratory. I, II; 4. Prerequisite: Chemistry 122 and 133; Physics 102 or 104, or equivalent.

Civil Engineering

101. SURVEYING THEORY. Theoretical aspects of plane and topographic surveying, land surveying; computation of areas and volumes. First three weeks of summer session. S; 3. Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
102. SURVEYING PRACTICE. Field practice of plane and topographic surveying. The use of the level, transit and tape in making engineering surveys and topographic maps. Last five weeks of summer term. At summer camp only. S; 4. Prerequisite: Civil Engineering 101, or concurrent registration therein.
103. ROUTE SURVEYING. Principles of the economic location of railways and highways; horizontal and vertical alinement for route projects; computations for earthwork quantities and distribution; railway track turnouts. I; 3. Prerequisite: Credit in civil engineering summer camp.
115. GENERAL SURVEYING. Use and care of surveying instruments; methods of making engineering surveys; computations of areas and volumes; contour problems; transit stadia mapping methods. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
160. BUILDING CONSTRUCTION. Materials, types of construction, and details for buildings. I, II; 3. Prerequisite: Sophomore standing.
235. PLAIN CONCRETE. Production, properties, specification requirements and uses of Portland cement, aggregates, mixing water, and admixtures; proportioning; field practice including tests on materials and concrete of various proportions; calculations and graphs based on values from concrete proportioning projects. I, II; 2. Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.

Economics

100. INTRODUCTION TO BUSINESS. An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. I, II; 3.
101. ECONOMIC HISTORY OF THE UNITED STATES. Explorations and settlements; colonization; growth of industry, agriculture, commerce, transportation, and labor. Open to freshmen only; others require consent of the dean of the college. I, II; 3.
102. PRINCIPLES OF ECONOMICS. Principles of production, supply, demand, value, price, distribution. I, II; 3. Prerequisite: One year of university work.
103. PRINCIPLES OF ECONOMICS. Principles of economics as applied to exchange, money, banking, price changes, governmental finance, etc. I, II; 3. Prerequisite: Economics 102.
108. ELEMENTS OF ECONOMICS. A brief presentation of price determination, international trade and exchange, money and banking, and public finance. For non-commerce students only. Not open to those who have had Economics 102 and 103. I, II; 3. Prerequisite: One year of university work.
170. ELEMENTS OF STATISTICS. Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. I, II; 3. Prerequisite: Economics 102 or 108; sophomore standing.

Education

100. THE AMERICAN PUBLIC SCHOOL. Introduction to the study of education. This course is required for all applicants for teaching certificates in Illinois. I, II; 2. Prerequisite: Sophomore standing.

109. **EDUCATIONAL PSYCHOLOGY.** The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. I, II; 3. Prerequisite: Psychology 100.

Electrical Engineering

114. **WIRING AND ILLUMINATION.** Fundamentals of commercial and industrial illumination and wiring practice. Open to architecture and architectural engineering students only. I, II; 3. Prerequisite: Sophomore standing, or consent of instructor.
120. **ILLUMINATION ENGINEERING AND SECONDARY POWER DISTRIBUTION.** Fundamentals of illumination engineering practice and principles of commercial and industrial wiring. Lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. I, II; 3. Open only to students in electrical engineering. Prerequisite: Sophomore standing in electrical engineering.
126. **ELECTRIC CIRCUITS AND FIELDS.** Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. I, II; 4. Prerequisite: Physics 103; Mathematics 132; credit or registration in Physics 104 and Mathematics 142.

Engineering

100. **ENGINEERING LECTURES.** Selected topics each week. Required of freshmen in the College of Engineering. I; no credit.

English

101. **INTRODUCTION TO POETRY.** Understanding of poetry; study of major types of poetry and of elements of versification. I, II; 3. Credit is not given for English 111 or 112 in addition to English 101 or 102, or for any of these courses in addition to English 121 and 122. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
102. **STUDY OF THE DRAMA.** Understanding of drama through the reading and analyzing of representative plays, past and modern. I, II; 3. See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
111. **MASTERPIECES OF ENGLISH LITERATURE.** Shakespeare, Donne, King James Bible, Milton, Pope, and Fielding. I, II; 3. See note under English 101. Seniors receive only two hours credit. Prerequisite: The minimum entrance requirements in English.
112. **MASTERPIECES OF ENGLISH LITERATURE.** Gay, Goldsmith, Sheridan, Austen, Byron, Dickens, Arnold, Eliot, Browning. I, II; 3. See note under English 101. Seniors receive only two hours credit. Prerequisite: English 111.
113. **AMERICAN LITERATURE.** A survey of American literature with lectures on the historical and cultural background. From 1620 to the Civil War. I, II; 3. Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
114. **AMERICAN LITERATURE.** A survey of American literature with lectures on the historical and cultural background. From the Civil War to the 20th Century. I, II; 3. Prerequisite: Sophomore standing, or exemption from Rhetoric 102.

121. CHIEF ENGLISH WRITERS BEFORE 1800. *Canterbury Tales*, *Utopia*, three plays by Shakespeare, *Paradise Lost*, *Gulliver's Travels*, *Tom Jones*, *The Life of Johnson*, *Rasselas*. Intended for students in professional and technical courses, such as law, medicine, commerce, engineering, etc. I, II; 4. See note under English 101. This course, plus English 122, satisfies the humanities requirement in general education. Prerequisite: Sophomore standing.
122. CHIEF ENGLISH WRITERS OF THE NINETEENTH CENTURY. Wordsworth, Byron, Carlyle's *Past and Present*, Matthew Arnold's *Prose and Poetry*, *Rubaiyat of Omar Khayyam*, Readings from Huxley, Brown- ing's poems and plays, two novels. Intended for students in professional and technical courses, such as law, medicine, commerce, engineering, etc. I, II; 4. See note under English 101. This course, plus English 122, satisfies the humanities requirement in general education. Prerequisite: Sopho- more standing.
131. INTRODUCTION TO SHAKESPEARE. I, II; 3. Prerequisite: Sopho- more standing, or exemption from Rhetoric 102.
144. CONTEMPORARY POETRY. American poetry from Whitman to Sand- burg; and English poetry from the pre-Raphaellites to Masfield. II; 3. Prerequisite: Six hours of English literature, or junior standing.

French

101. ELEMENTARY COURSE. Grammar, pronunciation, reading of modern authors, composition, conversation. For students who have no credit in French. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for French 101 without French 102.
102. ELEMENTARY COURSE. Continuation of French 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: French 101, or one year of high school French.
103. MODERN FRENCH. Rapid reading of modern authors, syntax, and composition. I, II; 4. Prerequisite: French 102, or two years of high school French.
104. MODERN FRENCH. Continuation of French 103. I, II; 4. Prerequisite: French 103, or three years of high school French.
201. INTRODUCTION TO FRENCH LITERATURE. I; 3. Prerequisite: French 104, or four years of high school French.
202. INTRODUCTION TO FRENCH LITERATURE. II; 3. Prerequisite: French 104, or four years of high school French.

General Engineering Drawing

101. ELEMENTS OF DRAWING. Lettering; orthographic projection; work- ing drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. I, II; 4. Seniors receive only three hours credit. Prerequisite: Plane geometry.
102. DESCRIPTIVE GEOMETRY. Theory of projections; solution of theo- retical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, per- spective drawing. I, II; 4. Prerequisite: Plane and solid geometry; Gen- eral Engineering Drawing 101.
103. AIRCRAFT DRAFTING AND LOFTING. Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and

details; aircraft fastenings; lofting—plane, tapered, and double curved surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104, and 102.

104. **ADVANCED DRAWING.** Review of orthographic projection and working drawings; isometric, oblique, perspective, chart and diagram, topographical, architectural, and structural drawing. I, II; 4. Prerequisite: General Engineering Drawing 101, or substantial equivalent.
106. **ELEMENTS OF DRAWING.** Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings, piping and perspective drawing, and structural drawing. For students in chemical engineering. I, II; 2. Prerequisite: Plane geometry.
107. **ARCHITECTURAL PROJECTIONS.** Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. I, II; 2. Prerequisite: Plane geometry.
108. **ARCHITECTURAL PROJECTIONS (CONTINUED).** Shades and shadows; oblique, isometric, and perspective drawing; developments. I, II; 2. Prerequisite: General Engineering Drawing 107.
110. **PICTORIAL DRAWING.** Mechanical and freehand drawings of axonometric, oblique and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. I, II; 3. Prerequisite: General Engineering Drawing 102, or 107 and 108.
112. **GRAPHICAL CALCULATIONS.** Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula of the College of Engineering. I, II; 1. Prerequisite: General Engineering Drawing 101 or equivalent; Mathematics 122.

Geography

101. **ELEMENTS OF GEOGRAPHY.** The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Lectures, discussions, and quiz. I, II; 5. Seniors or those with credit in Geography 104 receive only four hours credit.
106. **GENERAL GEOGRAPHY.** A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 101, 103, 104, or 105. I, II; 5. Seniors receive only four hours credit.
111. **INTRODUCTORY METEOROLOGY.** The atmosphere; its composition, functions, and behavior in the production of various weather types; air masses; application to present-day activities. Lectures and quiz. I, II; 3. Prerequisite: Geography 101, or consent of instructor.
123. **GEOGRAPHY OF ILLINOIS.** Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. II; 3. Prerequisite: Geography 101, or 104, or 106, or consent of instructor.

Geology

101. **PHYSICAL GEOLOGY.** Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. I, II; 4. Geology 101 and 102

- meet the general education requirement in the physical sciences. Seniors receive only four hours credit.
102. HISTORICAL GEOLOGY. Evolution of the earth and its life. Lectures and laboratory. I, II; 4. Seniors receive only three hours credit. Prerequisite: Geology 101, or Division of General Studies 141.
 131. MINERALOGY. A systematic study of minerals and common rocks. Lecture and laboratory. I; 3. Prerequisite: One semester of college chemistry.
 132. MINERALOGY. Continuation of Geology 131. A systematic study of minerals and common rocks. Lecture and laboratory. II; 3. Prerequisite: Geology 131.
 150. GEOLOGY FOR ENGINEERS. I, II; 3. Prerequisite: Sophomore standing in the College of Engineering.

German

101. ELEMENTARY COURSE. Oral practice, reading, and grammar for beginners. Not open to students who have had high school credit in this language. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for German 101 without German 102.
102. ELEMENTARY COURSE. Continuation of German 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: German 101, or one year of high school German.
103. INTERMEDIATE COURSE. Modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 102, or two years of high school German, or equivalent.
104. INTERMEDIATE COURSE. Continuation of German 103. Literary reading. Classical and modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 103, or three years of high school German, or equivalent.
210. MASTERPIECES OF GERMAN LITERATURE. Introduction to German literature, its subjects, forms, and ideals. I, II; 3. Prerequisite: German 104, 144, two years of college German, or equivalent.

History

111. MODERN EUROPEAN HISTORY FROM THE RENAISSANCE TO 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. I; 4. Seniors receive only three hours credit.
112. MODERN EUROPEAN HISTORY, 1815 TO THE PRESENT. Development of European nationalism, liberalism, and imperialism; World War reconstruction. II; 4. Seniors receive only three hours credit.
131. HISTORY OF ENGLAND TO 1688. History of the British peoples to 1688. I; 3. Seniors receive only two hours credit.
132. HISTORY OF ENGLAND, 1688 TO 1950. Modern history of the United Kingdom; colonial and imperial development. II; 3. Seniors receive only two hours credit.
151. HISTORY OF THE UNITED STATES TO 1865. Colonial foundations; the movement for independence, early years of the Republic. I; 3. Prerequisite: Sophomore standing.
152. HISTORY OF THE UNITED STATES, 1865 TO 1950. A century of national life and organization. II; 3. Prerequisite: Sophomore standing.
181. THE ANCIENT WORLD. Ancient empires and Greece. I; 3. Prerequisite: Sophomore standing.
182. THE ANCIENT WORLD. Rome. II; 3. Prerequisite: Sophomore standing.

Hygiene

102. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate women during their first year of residence. I, II; 2. Seniors receive only one hour credit.
105. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate men during their first year of residence. I, II; 2. Seniors receive only one hour credit.

Management

101. INDUSTRIAL ORGANIZATION AND MANAGEMENT. Organization plans, administrative policies, and management problems with special attention to manufacturing units. I, II; 3. Prerequisite: Economics 102, or consent of Associate Dean of the college.

Marketing

101. PRINCIPLES OF MARKETING. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. I, II; 3. Prerequisite: Economics 102 and 103 or consent of Associate Dean of the college.

Mathematics

101. BASIC MATHEMATICS. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include algebra and plane geometry. II; 3.
102. BASIC MATHEMATICS. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include algebra and plane geometry. I; 3. Prerequisite: Mathematics 101.
103. INTRODUCTION TO COLLEGE ALGEBRA. I, II; 3.—Students having $1\frac{1}{2}$ entrance units in algebra receive no credit. Seniors receive no credit.
104. ELEMENTS OF ALGEBRA AND TRIGONOMETRY. For pre-medical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite for Mathematics 122. Pre-medical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 114. I, II; 3. Prerequisite: High school algebra, 1 unit; plane geometry, 1 unit.
106. SOLID GEOMETRY. Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. I, II; 3. Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
108. ELEMENTARY PLANE GEOMETRY FOR VETERANS. This course deals with the usual topics of high school geometry. It is designed as a refresher course for veterans who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course. I, II; no credit.
112. COLLEGE ALGEBRA. I, II; 3. Seniors receive only two hours credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.

114. PLANE TRIGONOMETRY. I, II; 2. Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
115. ADVANCED TRIGONOMETRY. Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, De Moivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. I, II; 2. Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 114, or entrance trigonometry, $\frac{1}{2}$ unit.
117. COMBINED FRESHMAN MATHEMATICS. A combined course integrating all the usual topics of algebra, trigonometry, and analytic geometry, and also some topics of differential calculus. For students of chemistry, chemical engineering, ceramic engineering, ceramics, and architecture. I; 5. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
122. ANALYTIC GEOMETRY. Plane and solid analytic geometry. I, II; 4. Seniors receive only three hours credit. Prerequisite: Mathematics 111 or 112 and 114 or 115.
127. COMBINED FRESHMAN MATHEMATICS. Continuation of Mathematics 117. II; 4. Prerequisite: Mathematics 117.
132. CALCULUS. First course for students of mathematics and engineering. I, II; 5. Prerequisite: Mathematics 122.
137. CALCULUS. For students of chemistry, chemical engineering, ceramics, ceramic engineering, and architecture. I; 3. Prerequisite: Mathematics 117 and 127, or consent of department.
142. CALCULUS. Second course for students of mathematics and engineering. I, II; 3. Prerequisite: Mathematics 132.
147. CALCULUS. Continuation of Mathematics 137. II; 3. Prerequisite: Mathematics 137.
161. STATISTICS. II; 3. Prerequisite: Mathematics 111 or 112; sophomore standing.
341. DIFFERENTIAL EQUATIONS. II; 3. Prerequisite: Mathematics 132 and 142, or 137 and 147.

Mechanical Engineering

171. MECHANISM. A study of the transmission and modification of motion by linkwork, cams, gears, belts, ropes, chains, etc.; theory of gear tooth action; gear tooth systems and production methods; point paths, displacement diagrams. I, II; 2. Prerequisite: General Engineering Drawing 101; registration in Physics 103.
182. MANUFACTURING PROCESSES. Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. I, II; 3. Prerequisite: Sophomore standing in aeronautical engineering, or consent of instructor.
183. MATERIALS CASTING. Casting as a process of fabrication; the molding process including machine molding; molding sand characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages, and disadvantages; gray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.

184. **METAL PROCESSING.** Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.

Military Science and Tactics

101. **FRESHMAN DRILL AND THEORY.** Basic military instruction to include military policy; military organization; evolution of warfare; maps; and leadership, drill and command. I; 1. Prerequisite: Military Science Department approval.
102. **FRESHMAN DRILL AND THEORY.** Basic military instruction to include military psychology and personnel management, geographical foundations of national power, military problems of the United States; and leadership, drill and command. II; 1. Prerequisite: Military Science 101 or equivalent.
133. **ENGINEER SOPHOMORE DRILL AND THEORY.** History and traditions of the Corps of Engineers, characteristics of weapons, camouflage, explosives and demolitions, hand tools, mines, tactics and field fortifications. I; 1. Prerequisite: Military Science 102 or equivalent.
134. **ENGINEER SOPHOMORE DRILL AND THEORY.** Continuation of Military Science 133. II; 1. Prerequisite: Military Science 133.
163. **ANTI-AIRCRAFT ARTILLERY SOPHOMORE DRILL AND THEORY.** Introduction, characteristics, and service of the piece of AAA automatic weapons and 90-mm AAA guns. I; 1. Prerequisite: Military Science 102 or equivalent.
164. **ANTI-AIRCRAFT ARTILLERY SOPHOMORE DRILL AND THEORY.** Continuation of Military Science 163. II; 1. Prerequisite: Military Science 163.

Philosophy

101. **INTRODUCTION TO PHILOSOPHY.** Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. I, II; 3. Prerequisite: Sophomore standing.
102. **LOGIC.** Reasoning, detection of fallacies, evidence. I, II; 3. Prerequisite: Sophomore standing.
105. **MORAL IDEAS AND PRACTICE.** I, II; 2. Prerequisite: Sophomore standing. Credit is not given for both Philosophy 103 and 105.

Physical Education for Men

01. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.
02. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.
03. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 2.
04. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 2.
06. **DEVELOPMENTAL ACTIVITIES.** Activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards. I, II; 1.

108. BEGINNING SWIMMING. Skills, knowledge, attitudes, and conditions. I, II; 1. Open only to non-swimmers.
112. INDIVIDUAL TUMBLING STUNTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
113. DOUBLE TUMBLING STUNTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
114. APPARATUS STUNTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
117. BOXING. Skills, knowledge, attitudes, and conditions. I, II; 1.
118. WRESTLING. Skills, knowledge, attitudes, and conditions. I, II; 1.
119. FOIL FENCING. Skills, knowledge, attitudes, and conditions. I, II; 1.
120. PERSONAL DEFENSE ACTIVITIES. Skills, knowledge, attitudes, and conditions. I, II; 1.
123. WEIGHT LIFTING. Skills, knowledge, attitudes, and conditions. I, II; 1.
129. VOLLEYBALL. Skills, knowledge, attitudes, and conditions. I, II; 1.
132. ARCHERY. Skills, knowledge, attitudes, and conditions. I, II; 1.
136. BADMINTON. Skills, knowledge, attitudes, and conditions. I, II; 1.
139. BACKYARD SPORTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
140. BOATING AND FISHING. I, II; 1. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities, or approval of the Director of Physical Education.
150. PROFESSIONAL ORIENTATION. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors. I, II; 2.
159. CAMP COUNSELING. Objectives, administration, counseling, activity programs, evaluation. I, II; 3.

Physical Education for Women

100. FUNDAMENTALS OF MOTOR FITNESS. I, II; 1.
101. INDIVIDUAL GYMNASTICS. Recommendation from the Department of Health Service is necessary for registration in this course. I, II; 1.
102. MODIFIED ACTIVITIES. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service. I, II; 1.
105. ELEMENTARY RHYTHMS. I, II; 1.
106. INTERMEDIATE RHYTHMS. I, II; 1. Prerequisite: P.E.W. 105.
107. ADVANCED RHYTHMS. An opportunity for those who have completed previous work to further their skills in muscular control and extend their creative interests and appreciations of art through the medium of the dance. I, II; 1. Prerequisite: P.E.W. 105 and 106.
110. ELEMENTARY SWIMMING. S; 1.
123. BASKETBALL. I, II; 1.
124. VOLLEYBALL. I, II; 1.
125. SOFTBALL. I, II; 1.
130. BADMINTON. I, II; 1.
131. GOLF. Personal equipment to be furnished by student. I, II; 1.
132. BOWLING. S; 1.
135. ARCHERY. I, II; 1.
141. TUMBLING AND APPARATUS STUNTS. The side horse, parallel bars, stall bars, buck, etc. are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used. I, II; 1.

143. AMERICAN SQUARE DANCE. I, II; 1.
144. ELEMENTARY FOLK DANCE. I, II; 1.
155. PHYSICAL EDUCATION PRACTICE. Basketball, softball, rhythms. II; 2.
200. GAMES FOR SCHOOL AND PLAYGROUND. Prerequisite: For students majoring in physical education. I, II; 2.

Physics

101. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and in architecture. I, II; 5. Prerequisite: Trigonometry.
102. GENERAL PHYSICS (LIGHT, ELECTRICITY, AND MAGNETISM). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and in architecture. I, II; 5. Prerequisite: Physics 101.
103. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I, II; 5. Prerequisite: Mathematics 132 or 137, or concurrent registration in these courses.
104. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, LIGHT, AND MODERN PHYSICS). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I, II; 5. Prerequisite: Physics 103.
105. NURSES' PHYSICS. Primarily for students in nursing education. Those basic principles of physics that are pertinent to the training and routine of nurses in both institutional and private service. A lecture and problem course with emphasis on selected recent developments in nuclear physics and radioactive tracers. Lecture-demonstrations once each week. I, II; 4. Prerequisite: Algebra, sophomore standing in the curriculum of nursing education, and consent of the Departments of Physics and Nursing Education.

Political Science

103. INTRODUCTION TO POLITICAL SCIENCE. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: scope and method of political science; constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy. I; 3.
104. INTRODUCTION TO INTERNATIONAL POLITICS. This is designed as a survey of the type initiated in Political Science 103. Topics to be covered will include the following: the development of the world system of states; the international political and economic struggle for power, the determination and conduct of foreign policy; problems involved in maintaining peace; and organizations devoted to its maintenance. II; 3.
150. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. I, II; 3. Prerequisite: Sophomore standing.
151. AMERICAN GOVERNMENT: FUNCTIONS. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. I, II; 3. Students may not receive credit for both Political Science 151 and 101-102. Prerequisite: Sophomore standing; Political Science 150, or consent of the department.

Psychology

100. **INTRODUCTION TO PSYCHOLOGY.** Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. I, II; 4. Prerequisite: Sophomore standing.
125. **AN INTRODUCTION TO THE FIELDS OF PSYCHOLOGY.** An introduction to the basic fields of psychology including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. I; 4. Prerequisite: Psychology 100, or its equivalent, or junior standing. Students taking this course may not take Psychology 220 at the Urbana campus for credit.
145. **INDUSTRIAL PSYCHOLOGY.** Psychology of industrial work and management-employee relationships. II; 2. Prerequisite: Psychology 100, or 103, or 106.
150. **CHARACTER AND PERSONALITY.** Analysis of the non-intellectual aspects and determinants of mentality; problems; and personnel psychology. I, II; 3. Prerequisite: Psychology 100, or 103, or 106, or equivalent.

Rhetoric

100. **FRESHMAN REMEDIAL RHETORIC AND COMPOSITION.** Open to students who fail the placement test for admission to Rhetoric 101. Intensive review of fundamentals, with considerable practice in composition. Students passing this course will be admitted to Rhetoric 101 without further examination. I, II; no credit.
101. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. I, II; 3. Seniors receive only two hours credit. Prerequisite: A passing grade on the Rhetoric 101 placement examination or a passing grade in Rhetoric 100.
102. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. I, II; 3. Seniors receive only two hours credit. Prerequisite: Rhetoric 101.
133. **EXPOSITORY WRITING.** I, II; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.
144. **NARRATIVE WRITING.** Elements and practice of narrative writing. Not a course in short-story writing. I, II; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.
151. **BUSINESS LETTER WRITING.** I, II; 2. Prerequisite: Rhetoric 101 and 102. This course is not counted toward a major in English.

Social Sciences

111. **THE INDIVIDUAL AND SOCIETY.** A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology.
112. **BASES OF AMERICAN LIFE.** A general education course designed to acquaint the student with adequate knowledge of the physical, economic, political, and social developments of the United States and to equip him for

intelligent active participation in local and national life. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in Political Science 150 or 151 or History 151 or 152.

113. **WORLD PATTERNS AND WORLD PROBLEMS.** A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in Geography 103.
114. **THE UNITY OF KNOWLEDGE.** A general education course designed to acquaint the student with the development of philosophical and scientific disciplines in intellectual history, and to equip him to direct his further general education by his awareness of the integrative factors in current education and culture. I, II; 4. Prerequisite: Sophomore standing and a 3.5 average.

Sociology

100. **PRINCIPLES OF SOCIOLOGY.** I, II; 3. Prerequisite: Sophomore standing.
110. **SOCIAL FACTORS IN PERSONALITY.** Nature of person and relation to institutions, social order, and development. I, II; 3. Prerequisite: Sociology 100.
140. **SOCIAL CONTROL.** I, II; 2. Prerequisite: Sociology 100.

Spanish

101. **ELEMENTARY SPANISH.** For students who have no credit in Spanish. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for Spanish 101 without 102.
102. **ELEMENTARY SPANISH.** Continuation of Spanish 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: Spanish 101, or one year of high school Spanish.
103. **INTERMEDIATE SPANISH.** Rapid reading, review of grammar, composition, conversation. I, II; 4. Prerequisite: Spanish 102, or two years of high school Spanish.
104. **INTERMEDIATE SPANISH.** Continuation of Spanish 103. I, II; 4. Prerequisite: Spanish 103, or three years of high school Spanish.
113. **ELEMENTARY COMPOSITION AND CONVERSATION.** Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. I, II; 2. Prerequisite: Spanish 102, or two years of high school Spanish.
201. **INTRODUCTION TO SPANISH LITERATURE.** Reading of modern authors of Spain and Latin America. I; 3. Prerequisite: Spanish 104, or four years of high school Spanish.
202. **INTRODUCTION TO SPANISH LITERATURE.** Reading of modern authors of Spain and Latin America. I, II; 3. Prerequisite: Spanish 201.

Speech

101. **PRINCIPLES OF EFFECTIVE SPEAKING.** Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. I, II; 3. Seniors receive only two hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.

105. VOICE AND ARTICULATION. A drill course for the improvement of the normal speaking voice. II; 2. Seniors receive only one hour credit. Prerequisite: Consent of instructor.
107. PARLIAMENTARY PROCEDURE. Principles and practice of parliamentary procedure. I, II; 2. Seniors receive only one hour credit.
111. BUSINESS AND PROFESSIONAL SPEAKING. Study, preparation, and presentation of the chief types of business speeches, with special attention to conference, sales talks, interviews, job applications. I, II; 2. Prerequisite: Speech 101; sophomore standing.
117. ARGUMENTATION. Methods of logical analysis; the kinds and forms of argument; the adaptation of argumentative materials to audience situations; and the forms of debate. Practice debates on current subjects. I, II; 3. Prerequisite: Speech 101; sophomore standing.
141. ORAL INTERPRETATION OF LITERATURE. Principles of interpretation, analysis, and oral reading of prose literature and verse. I, II; 2. Seniors receive only one hour credit.
161. FUNDAMENTALS OF ACTING. A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. II; 3. Prerequisite: Speech 141.

Theoretical and Applied Mechanics

150. ANALYTICAL MECHANICS (STATICS). Resultants of force systems, algebraic and graphical condition of equilibrium of force systems. Analysis of forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. I, II; 2. Prerequisite: Registration in Mathematics 142.
154. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. I, II; 4. Prerequisite: Registration in Mathematics 142.
156. ANALYTICAL MECHANICS (STATICS AND DYNAMICS). A combination of Theoretical and Applied Mechanics 150 and 211. I, II; 5. Prerequisite: Registration in Mathematics 142.
171. ELEMENTS OF MECHANICS (STATICS). Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. I, II; 3. Prerequisite: Mathematics 122.
172. STRENGTH OF MATERIALS. Relationships between external forces acting on beams and the stresses produced; shear, moment, slope, and deflection diagrams; moment of inertia; columns. For architects only. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 171.
211. ANALYTICAL MECHANICS (DYNAMICS). Displacement, velocity and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, and impulse and momentum. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 150.

CALENDAR

Chicago Undergraduate Division

1950—First Semester

Sept. 11, Mon.—Sept. 16, Sat. Orientation Period
Sept. 18, Mon.—Sept. 21, Thurs. Registration
Sept. 22, Fri. Instruction Begins
Nov. 21, Tues., 6:00 p.m. Thanksgiving Vacation Begins
Nov. 27, Mon., 8:00 a.m. Thanksgiving Vacation Ends
Dec. 3, Sun. Illinois Day (State admitted to the Union, 1818)
Dec. 20, Wed., 6:00 p.m. Christmas Vacation Begins
Jan. 3, Wed., 8:00 a.m. Christmas Vacation Ends
Jan. 22, Mon.—Jan. 30, Tues. Semester Examinations

1951—Second Semester

Feb. 5, Mon.—Feb. 9, Fri. Orientation Period
Feb. 10, Sat.—Feb. 13, Tues. Registration
Feb. 14, Wed. Instruction Begins
Mar. 2, Fri. University Day (University opened, 1868)
Mar. 22, Thurs., 6:00 p.m. Easter Vacation Begins
Mar. 28, Wed., 8:00 a.m. Easter Vacation Ends
May 11, Fri. Honors Day
May 30, Wed. Memorial Day
June 1, Fri.—June 9, Sat. Semester Examinations

1951—Summer Session

June 25, Mon.—June 26, Tues. Registration
June 27, Wed. Instruction Begins
July 4, Wed. Independence Day
Aug. 17, Fri.—Aug. 18, Sat. Summer Session Examinations

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1949-1950

Professors

- Bailey, Harold W., Ph.D., LL.D., Professor of Mathematics and Associate Dean of Liberal Arts and Sciences.
Caveny, Charles C., Ph.D., F.R.S.A., Dean of the Undergraduate Division in Chicago, with the rank of Professor.
Erskine, Earl B., M.D., Professor of Hygiene and Director of Health Service.
Freud, Benjamin B., Ph.D., Visiting Professor of Physical Sciences.
Hackett, Robert P., Ph.D., Professor of Accountancy and Associate Dean of Commerce and Business Administration.
Nowlan, Frederick S., Ph.D., Professor of Mathematics.

Associate Professors

- Babler, Bernard J., Ph.D., Associate Professor of Physical Sciences.
Barber, Hollis W., Ph.D., Associate Professor of Social Sciences.
Carlson, Clarence I., B.S., Associate Professor of General Engineering Drawing and Head of the Department.
Corliss, John J., Ph.D., Associate Professor of Mathematics and Chairman of the Division.
Cutshall, Alden D., Ph.D., Associate Professor of Social Sciences.
Derrick, Lucile, Ph.D., Associate Professor of Economics.
Grampp, William D., Ph.D., Associate Professor of Economics.
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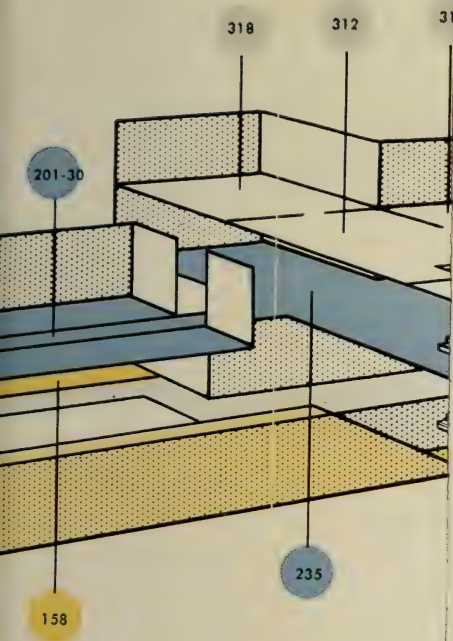
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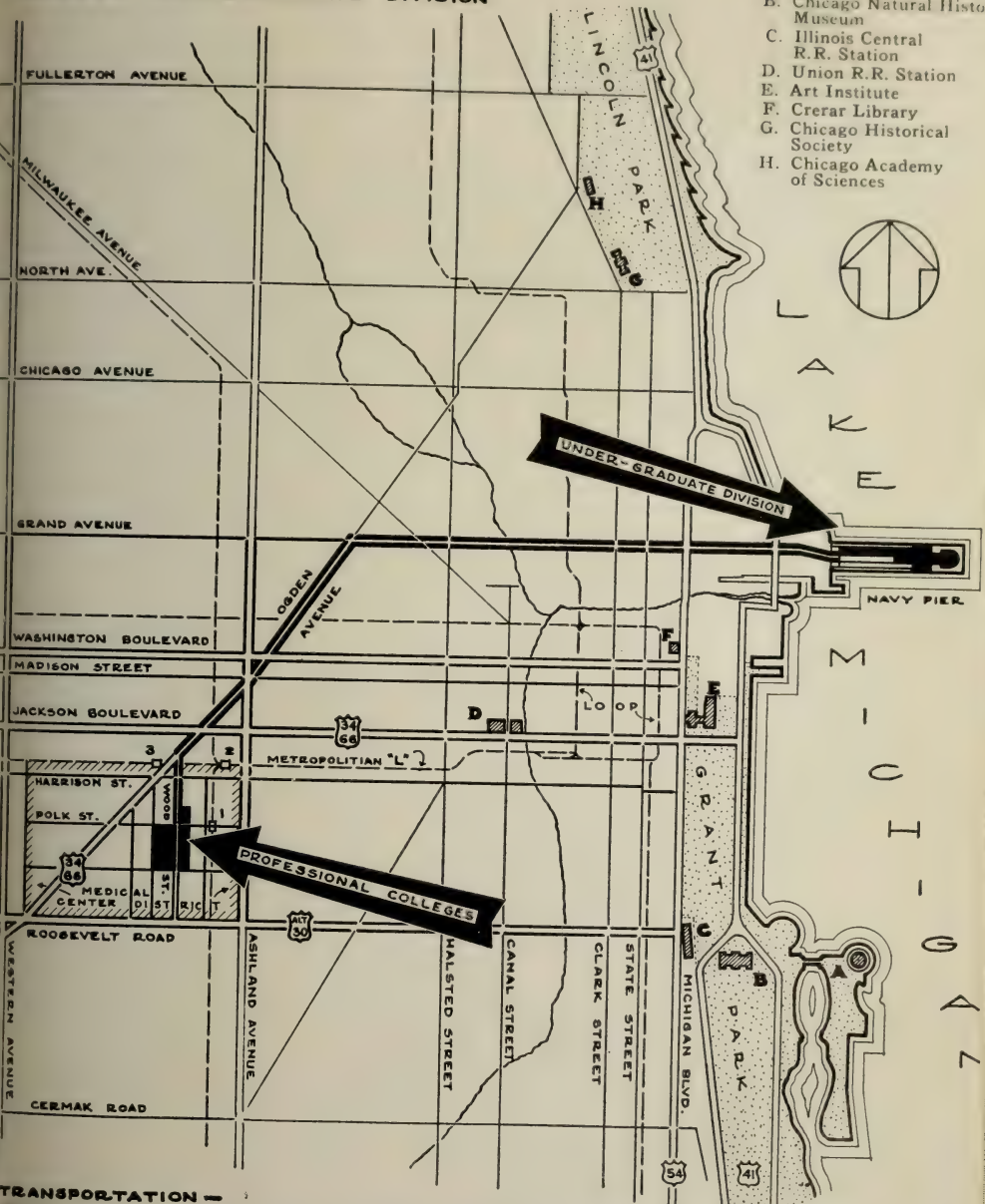
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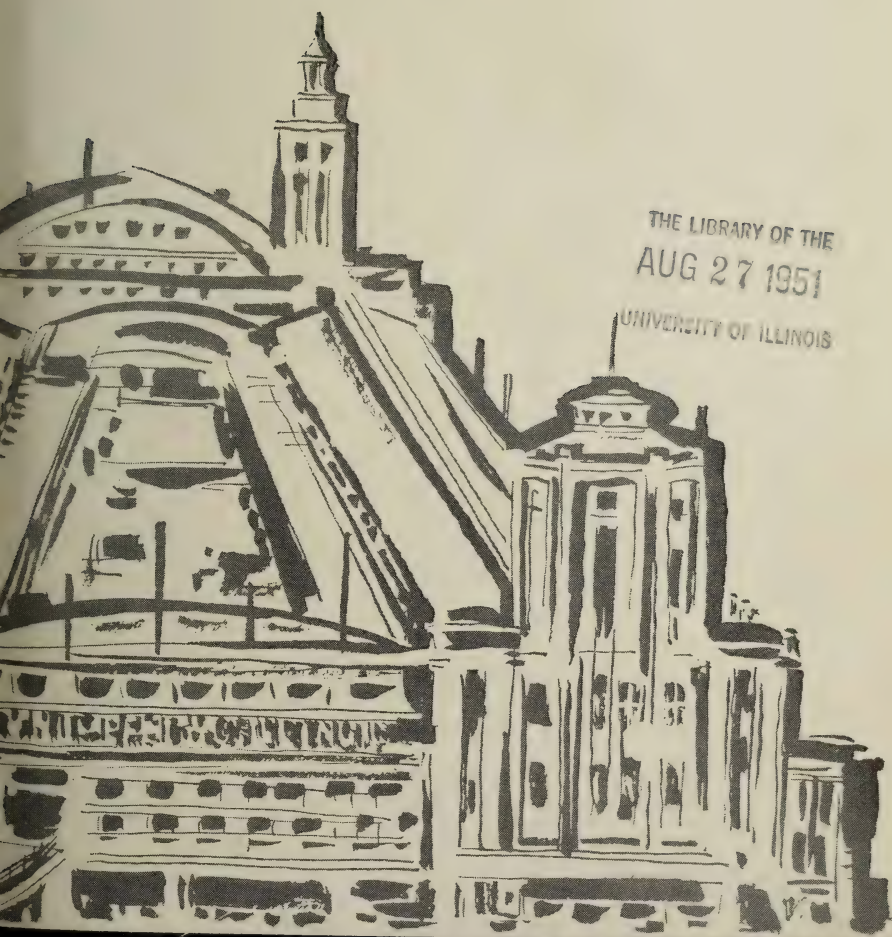
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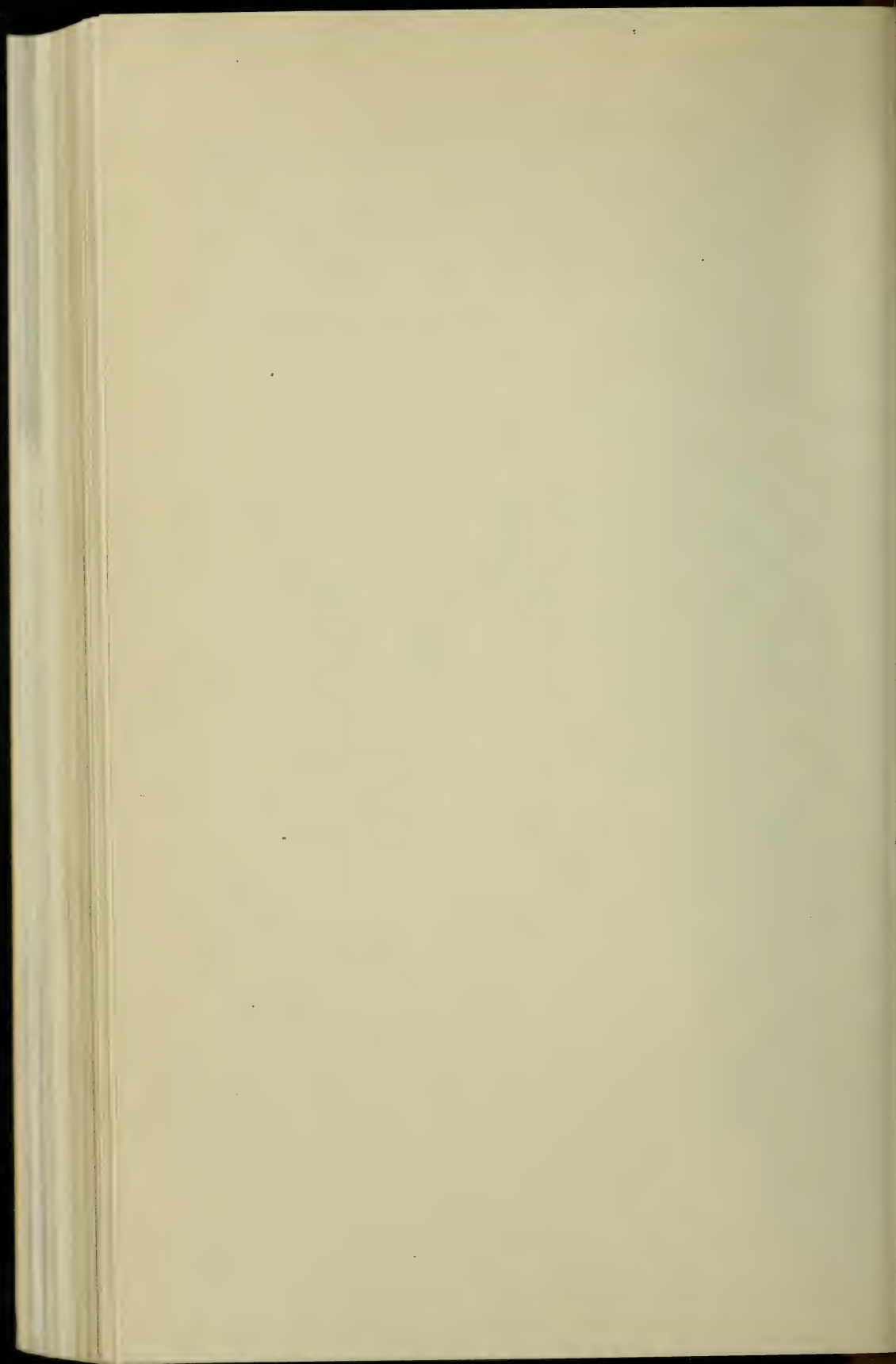
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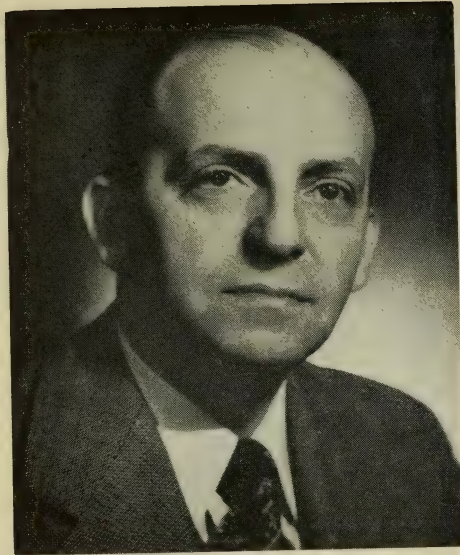




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The Chicago Undergraduate Division of the University is entering its sixth school year. Since October, 1946, the Undergraduate Division has offered a well-rounded educational program to the thousands of students who found it to their advantage to live in the Chicago metropolitan area while attending college.

Complete pre-professional courses of study are offered in the College of Liberal Arts and Sciences, the College of Commerce and Business Administration, and the College of Engineering. In addition, architecture and architectural engineering curricula, as a part of the College of Fine and Applied Arts, are offered under the administration of the College of Engineering.

Professional curricula in physical education and a program leading to a Bachelor of Science degree in nursing are also available. The basic course and the first year of the advanced course in ROTC have recently been established for men students.

Students enrolled at the Chicago Undergraduate Division have the same status as students matriculating on the Urbana campus. Courses of instruction, the schedule of fees, and admission requirements are the same on both campuses. Students completing the curricula at the Chicago

Undergraduate Division are given priority in completing their work for degrees on the Urbana campus.

Excellent instructional facilities are provided in the school's 68 classrooms and 33 modern, fully-equipped laboratories. A 55,000-volume library, food service, well-furnished lounges, and recreational facilities supplement the academic program. A large gymnasium adjacent to the Pier houses the athletic program.

As an important part of the services of the Student Counseling Bureau, educational and vocational guidance examinations are offered to prospective students. Counseling services of the Bureau, as well as the facilities of the offices of the Dean of Students and his assistants, the Dean of Men and Dean of Women, are available to students at all times.

The Chicago Undergraduate Division, through its educational, social, and cultural program, strives to provide its student body with the same high degree of service which has been so long a part of University of Illinois tradition.

ADMISSION

There are Seven Steps

In order to become a student at the Chicago Undergraduate Division of the University of Illinois, an applicant must take the following steps:

1. *Obtain an application for admission.* The Office of Admissions and Records of the Chicago Undergraduate Division will be glad to provide application blanks for admission in response to requests received by mail, by telephone, or in person.
2. *Provide the Office of Admissions and Records with an official transcript of his record in high school and his record at each college or institution of higher education which he has attended since leaving high school.* These records must be forwarded directly to the Office of Admissions and Records, University of Illinois, Chicago Undergraduate Division, Navy Pier, Chicago 11, by an official of the school concerned. In addition, applicants who have been on active duty in the Armed Forces must also submit photostatic copies of their service separation papers.
3. *Decide which college and curriculum in the University he desires to enter.* To assist applicants in making this decision, this division of the University offers Vocational and Educational Guidance Examinations



**Admissions counseling — Harold E. Temmer,
Examiner and Recorder**

which are followed by professional counseling. For new freshmen, these guidance examinations are a required activity of the orientation period. However, since the time available for counseling during the orientation period is extremely limited, these examinations are now being offered several months in advance. Appointments for these examinations may be made through the Office of Admissions and Records at the time an application blank is obtained. If the applicant has any question whatsoever as to the course of study he desires to pursue in college, the University strongly urges him to take these tests and receive counseling well in advance of the orientation period.

4. Complete and return the application blank.

5. When an applicant's case is complete, that is, after his completed application blank and all necessary supporting records and transcripts have been received, the case will be evaluated. If the application is approved, the applicant will be sent a permit to enter, an appointment for such placement, guidance, and motor fitness tests as may be necessary, an appointment for a physical examination, and information as to the date and place of his college meeting and of registration. If the application is not approved, the Office of Admissions and Records will send the applicant written notice of this action, explain his deficiencies, and make suggestions as to the manner in which he may remove them and qualify for admission.

6. *Report to Navy Pier for physical examination, college meeting, and tests listed in paragraph 5 above, on the dates specified in the notice which the applicant has received.*

7. *Register, pay tuition and fees, and start classes.*

ADMISSION REQUIREMENTS

For Admission Without Entrance Examinations (by certificate)

I. HIGH SCHOOL GRADUATES

A. General University admission requirements:

1. Graduation from an accredited high school.
2. Age.—An applicant must be at least sixteen years of age. The dean of the college concerned, however, may admit, on petition, a student fifteen years of age who meets all other requirements for admission and who is to reside while attending the University with his parents or guardian or with someone selected by them.
3. Fifteen units of acceptable secondary school work distributed as follows:
 - a. A minimum of nine units of work in the academic fields (English, mathematics, sciences, foreign languages, history and social studies) including:
 - (1) At least three units of English.
 - (2) At least two majors (including English) and one minor selected from the list of acceptable majors and minors on page 7. *Exception:* The requirement of a second major is waived for applicants who rank in the upper half of their class scholastically on graduation.
 - b. Six units from any of the high school subjects which are accepted by an accredited school toward its diploma and which meet University of Illinois accrediting standards.

B. College Subject Requirements.—Applicants must present credit in the subjects required for admission to the college and curriculum of their choice (See Chart page 6).

Required and Recommended Subjects for Admission

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
COLLEGE OF COMMERCE All Fields (Accountancy, Banking and Finance, Commerce and Law, Commercial Teaching, Economics, Industrial Administration, Management, Marketing, Public Affairs, Secretarial Training).	English, 3 units. Algebra, 1 unit. Geometry, 1 unit.	Advanced Algebra, $\frac{1}{2}$ unit. Science, 2 units (including 1 unit with laboratory).
COLLEGE OF ENGINEERING All Curricula (Aeronautical, Agricultural, Ceramic, Civil, Electrical, General, Mechanical, Metallurgical, Mining, Engineering Physics).	English, 3 units. Algebra, $1\frac{1}{2}$ units. Plane Geometry, 1 unit. Solid Geometry, $\frac{1}{2}$ unit. (See Paragraph 3, page 8.)	Language, 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units. Industrial Arts, 2 units.
Curricula in Architecture: Design Option (for B.S. degree in Architecture); Construction Option (for B.S. degree in Architectural Engineering).	English, 3 units. Algebra, $1\frac{1}{2}$ units. Geometry, 1 unit. (See Paragraph 3, page 8.)	Freehand Drawing, 1 unit. Science, 2 units (including physics and chemistry). Social Studies, 2 units (including economic and history).
COLLEGE OF LIBERAL ARTS AND SCIENCES General Curriculum with majors in Bacteriology, Botany, Economics, English, French, Geography, Geology, German, History, Philosophy, Political Science, Psychology, Sociology, Spanish, Speech, Zoology. General Curriculum preparatory to Education, Journalism, Law. Teacher-training Curricula (Not requiring Chemistry, Physics, or Mathematics).	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 8.)	Language, 3 units in one language, instead of the required 2 units. Science, 2 units (including biology). Social Studies, 2 units.
General Curriculum with majors in Chemistry, Physics, Mathematics, Physiology. Special Curricula preparatory to Dentistry, Medicine, Veterinary Medicine, Nursing. Teacher-training Curricula (Requiring Chemistry, Physics, and Mathematics).	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 8.) Algebra, 1 unit. Geometry, 1 unit.	Mathematics, 3 units instead of the required 2 units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.

¹Foreign language requirement is waived for students who rank in the upper half of their high school graduating class.

<i>Colleges</i>	<i>Subjects required for admission</i>	<i>Additional subjects recommended for admission</i>
Special Curricula in Chemistry and Chemical Engineering.	English, 3 units. Language, 2 units. ¹ (See paragraph 2, page 8.) Algebra, 1½ units. Geometry, 1 unit. (See Paragraph 3, page 8.)	Language, 4 units (including 2 units in French and 2 units in German). Mathematics, 3 units, instead of the required 2½ units. Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.
Elementary Education Curriculum.	English, 3 units. Algebra, 1 unit. Geometry, 1 unit.	Science, 2 units (including physics or chemistry or both). Social Studies, 2 units.
PHYSICAL EDUCATION Curriculum for Men and Curriculum for Women.	English, 3 units. Written approval of the Director of Physical Education.	Science, 3 units (including biology). Social Studies, 2 units. Health and safety education, and participation in school programs of physical education and athletics.

¹(See footnote page 6).

ACCEPTABLE MAJORS AND MINORS

Definitions:

Unit.—A *unit* course of study in the secondary school is a course covering an academic year and including not less than the equivalent of 120 sixty-minute hours of classroom work. Two hours of work requiring little or no preparation outside the class are considered as equivalent to one hour of prepared classroom work. Fractional credits of the value of less than one-half unit will not be accepted. Not less than one unit of work will be accepted in a foreign language, elementary algebra, plane geometry, physics, chemistry, or biology.

Major.—A *major* consists of three unit courses in one field.

Minor.—A *minor* consists of two unit courses in one field.

The required majors and minor defined above may be selected from the following five groups:

1) English — In all cases one major must be in English. Only courses in history and appreciation of literature, and in composition (including

oral composition when given as a part of a basic English course) and grammar, will count toward this major. Four units in English, while not required for any curriculum, are recommended by all the colleges.

(2) Foreign Language — Three units in one language constitute a major. Two units in one language constitute a minor. The foreign language requirement for admission is fulfilled by two units in any one of the following: German, French, Spanish, Italian, Latin, and Classical Greek. Less than one unit in a language is not acceptable for admission.

(3) Mathematics — Only courses in algebra, plane geometry, solid and spherical geometry, and trigonometry will be accepted toward a major or a minor in this subject. (General mathematics may be accepted in lieu of algebra and geometry in cases in which the content of the course is essentially the same as that ordinarily included in algebra and geometry. However, essentials of mathematics, business or shop mathematics, and commercial arithmetic are not acceptable toward a major or minor in mathematics.) In Engineering, and in the chemistry and chemical engineering curricula of L.A.S., where advanced algebra or solid geometry, or both, are required, students who have only one unit in algebra and one unit in geometry, and who meet all other entrance requirements, may be admitted on condition that the deficiency be removed during their first year of residence.

(4) Science — Including physics; chemistry; biology, or botany and zoology; general science, or physiology and physiography; astronomy; and geology. The three units required for a major must include at least a total of two units chosen from one or more of the following subjects: physics, chemistry, botany, and zoology. Biology may be offered in place of botany or zoology. The two units required for a minor must include at least one unit from the above subjects.

(5) Social Studies — Including history, civics, economics, commercial or economic geography, and sociology. The three units required for a major must include at least two units in history. The two units required for a minor must include at least one unit of history.

II. TRANSFER STUDENTS

A. All requirements listed in Item I, page 5. *Exception:* An applicant who is transferring from an institution rated as Class "A" by the

Checking records with the Office
of Admissions and Records



University and who is deficient in the admission requirements listed in Item I may be admitted if he presents at least 30 semester hours of credit in transfer with a 3.00 average ("C") and without any failures in any college subject. However, such applicants who desire to enter either the College of Commerce and Business Administration or the College of Engineering must present credit in the minimum mathematics required for these colleges.

B. Honorable dismissal from all institutions of higher learning previously attended, and a collegiate scholastic average of at least 3.00 ("C") in terms of the University of Illinois grading system. *Exception:* An applicant whose record at some other institution comes within either of the following classifications may enter the University only on approval of the dean of the college concerned and under the conditions imposed by him:

1. An applicant on probation at, or dropped from, another institution for poor scholarship or for disciplinary reasons. (In the latter instance, he must also obtain the approval of the University Senate Committee on Student Discipline.)
2. A person whose collegiate scholastic average is less than 3.00 in terms of the University of Illinois grading system.

III. NON-RESIDENT APPLICANTS

Applicants who are not residents of the State of Illinois may be admitted (if vacancies exist after all qualified resident applicants have been accommodated) provided they meet all requirements listed in Item I, page 5, and further provided that:

- A. As high school graduates they ranked scholastically in the upper half of their class on graduation.
- B. As transfer students they present a collegiate scholastic average of at least 3.5 (mid-way between "C" and "B") in terms of the University of Illinois grading system.

IV. SPECIAL SCHOLASTIC ADMISSION REQUIREMENTS

- A. High school graduates who are residents of the State of Illinois and who rank in the fourth (lowest) quarter of their class scholastically on graduation, if otherwise qualified, will be admitted on scholastic probation.
- B. Applicants for the following special curricula must meet the scholastic minima indicated opposite each curriculum.

Curriculum	Scholastic Requirements
1. Pre-Medical	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	3.5 collegiate average through the third semester of collegiate work. 3.75 collegiate average commencing with the fourth semester of college work.
2. Pre-Dental, Pre-Veterinary Medicine	
a. High school graduates	Rank in upper half of graduating class.
b. Transfer students	Collegiate average of 3.5.
3. Chemistry, Chemical Engineering	
a. High school graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 or collegiate average of 3.5 in chemistry subjects.
4. Engineering Physics	
a. High school graduates	No minimum.
b. Transfer students	Collegiate average of 3.5 and collegiate average of 3.5 in all college-level mathematics and physics.

ADMISSION BY EXAMINATION

Applicants who do not meet the requirements for admission listed above may qualify for admission by passing one or more examinations as outlined below: (*Exception:* This section does not apply to applicants who are deficient in the scholastic admission requirements outlined in Items III and IV, page 10. Scholastic deficiencies may not be removed by examination—only by an improved scholastic record.)

University of Illinois Entrance Examinations

Applicants who may be classified in any of the following categories may qualify for admission by passing University of Illinois entrance examinations as indicated under each category:

A. Graduates of Unaccredited High Schools:

1. Applicants who rank in the top twenty-five per cent of their graduating class from an unaccredited secondary school which offers four years of instruction may qualify by passing an entrance examination in English composition and rhetoric and such other entrance examinations in high school subjects as may be necessary to complete admission requirements.

2. Applicants who are graduates of unaccredited secondary schools and rank below the top twenty-five per cent of their graduating class may qualify by passing entrance examinations for a minimum of fifteen units of secondary credit, including all courses necessary to meet University and curricular admission requirements.

B. Applicants who have attended an accredited high school, but who have not been graduated, may qualify by passing an entrance examination in English composition and rhetoric and additional entrance examinations for a total of at least four units of work in subjects to be designated by the University.

C. Applicants who have not completed any secondary school work may qualify by passing University of Illinois entrance examinations in all high school subjects necessary to meet general University and specific college admission requirements.

D. Applicants who do not meet University admission requirements with respect to any one or more of the following:

Total units of credit
Total academic units
Majors and minors
Subjects required for
admission to the col-
lege of the applicants'
choice

} may qualify by passing University of
Illinois entrance examinations in the
subjects in which they are deficient

General Educational Development Tests

United States Armed Forces Institute General Educational Development Tests.—Veterans of active duty with the United States Armed Forces or with the United States Maritime Service and adult non-veterans (non-veterans 21 years of age or older) may qualify for admission to the University by passing the USAFI General Educational Development Tests under the following conditions:

A. Applicants seeking admission to the College of Liberal Arts and Sciences may qualify if their G.E.D. test scores are sufficiently high to entitle them to a scholastic rank equivalent to that of a student who has been graduated in the upper half of his class in an accredited secondary school. Applicants, whose G.E.D. scores are passing but below minimum required for upper-half classification scholastically, may qualify if they present credit from accredited sources in two successive years of an acceptable foreign language. *Exception:* Applicants desiring to enter specialized curricula in Liberal Arts and Sciences for which mathematics is required (see page 6) may not qualify by G.E.D. tests alone, but must present credit from accredited sources in elementary algebra and plane geometry.

B. Applicants seeking admission to the College of Commerce and Business Administration or the College of Engineering may qualify by passing the G.E.D. tests and presenting credit from accredited source in the required mathematics.

C. Applicants seeking admission to the Physical Education curriculum may qualify by passing the G.E.D. tests and securing the approval of the Director of Physical Education.

FEES

TUITION — Illinois residents (except those holding scholarships) registering in nine hours or more pay a tuition fee of\$40.00
Non-residents registering in nine hours or more pay a tuition fee of 150.00
Students taking eight hours or less pay \$3 per hour if residents of Illinois, or \$10 per hour if non-residents.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in six hours or more pay as insurance for hospital and medical service a fee of 5.00

LABORATORY, LIBRARY, AND SUPPLY FEE—All students registering in nine hours or more pay a laboratory, library, and supply fee of 8.00
Students taking less than this amount of instruction pay \$4 each semester.

STUDENT ACTIVITIES FEE—All students registering in six hours or more pay a student activities fee of..... 6.00

DEPOSITS—Each student must make a deposit of \$5 at the time of his first registration. An additional deposit of \$10 (\$15 in all) is required of students withdrawing military equipment. Chargeable against these deposits are such items as unreturned towels and locks, lost library books, library fines, shortages in laboratory, military, and other equipment, etc. Whenever the amount of the \$5 deposit falls below \$2.50 or the amount of the \$15 deposit falls below \$12.50, the student will be required immediately by additional deposit to bring the total up to \$5 and \$15, respectively. Any balance in deposit will be returned, after the end of the semester, to the student in case he officially withdraws from the University. The \$10 military deposit will be returned to the student, upon receipt of the military equipment, at the end of each school year.

IDENTIFICATION CARD—Each student, on completing registration each semester, is given an identification card for use in obtaining loans of library books, locks, towels, and other equipment.

Fees for the Summer Session

TUITION—Illinois residents (except those holding scholarships) registering in five hours or more pay a tuition fee of\$20.00
Non-residents registering in five hours or more pay a tuition fee of. 75.00
Students taking four hours or less pay \$3 per hour if residents of Illinois.

HOSPITAL AND MEDICAL SERVICE FEE—All students registering in four hours or more pay as insurance for hospital and medical service a fee of..... 2.50

LABORATORY, LIBRARY, AND SUPPLY FEE—All students registering in five hours or more pay a laboratory, library, and supply fee of 4.00
Students taking less than this amount of instruction pay \$2 for the summer session.

STUDENT ACTIVITIES FEE—All students registering in four hours or more pay a student activities fee of 3.00
All fees listed above are due and payable in full when the student registers.

Refunds of Fees

In case a student withdraws from a course or from the University¹ during the first ten days of instruction, the total amount of his tuition and fees for the work dropped will be refunded. After ten days and before the middle of the semester, a rebate of one-half the tuition and fees will be made. After the middle of the semester, no rebate will be allowed. In the summer term, the total amount of the tuition and fees paid will be refunded if withdrawal occurs within the first five days; one-half the amount after the first five days but within the first four weeks; and nothing after the beginning of the fifth week.

Miscellaneous Fees

SERVICE CHARGE FOR DEFERRED FEES—A service charge of ten percent of the amount of fees deferred, but not to exceed \$3 a semester, is assessed for the privilege of deferring fees, and this charge must be paid on the day of registration. If deferred fees are paid within ten days after registration, the service charge is refunded *except* that a minimum service charge of \$1 is retained by the University in all cases. The general deposit of \$5 (if this deposit has not previously been paid), the service charge, and all charges from previous semesters must be paid on the day of registration.

CHANGE FEE—For every change slip issued later than noon of the second Monday following registration the fee is \$1.00

TRANSCRIPT FEE—Each student who has paid all his University fees is entitled to receive, without charge, one transcript of his record. For each additional transcript the fee is50

¹Students leaving the University before the end of a semester or session should initiate withdrawal papers at the office of the dean of their college. Failure to do so will result in the student's being dropped at the end of the semester.

LATE REGISTRATION FEE—Former students who register after the regular registration days in either semester pay a late registration fee of 5.00

SPECIAL EXAMINATION FEE—For any special examination to remove a failure the fee is..... 5.00

LISTENER'S FEE—Persons not connected with the University who attend classes as listeners pay for each course..... 7.50

**DIVISION OF SPECIAL SERVICES
FOR WAR VETERANS**

The University of Illinois Division of Special Services for War Veterans has established an office at the Chicago Undergraduate Division for the purpose of assisting the veteran in returning to civilian life, but it does not register students as on the Urbana campus. Instead, a counselor in this office assists the veteran in making educational adjustments and guides him in his search for the curriculum which will best satisfy his needs.

Stop for supplies at the Bookstore



Through the Examiner and Recorder of the Chicago Undergraduate Division, the veteran can ascertain to what extent he may meet entrance requirements by credit for service or for courses taken through the United States Armed Forces Institute. Credit in military science, physical education, and hygiene will be granted to any veteran, honorably discharged, who presents evidence that he has completed the basic training program in the Army, Navy, Marine Corps, or Coast Guard. Credit for work taken in college training programs in technical schools, and in courses pursued while the veteran was in service, may be transferred upon the basis of evaluation by the Examiner and Recorder.

VETERANS' REGISTRATION INFORMATION

Veterans may qualify for admission to the Chicago Undergraduate Division under the regular entrance requirements listed on pages 3 to 12. Honorable discharge papers and credentials showing special training courses completed while in the Armed Forces should accompany high school and college credentials at the time of application. These credentials should be sent to the Office of Admissions and Records, University of Illinois, Undergraduate Division, Navy Pier, Chicago 11, Illinois, for evaluation.

VETERANS ELIGIBLE FOR THE G.I. BILL

Veterans discharged on or before July 25, 1947, must have been registered in some type of training under the G. I. Bill during the spring semester of the school year 1950-1951, or in the summer session 1951 in order to be eligible to continue training under the Bill the following fall term. These veterans must register under the G. I. Bill without interruption each regular semester after July 25, 1951, if they wish to retain their eligibility.

Application for a Certificate of Eligibility to attend a new institution must be submitted to the Veterans Administration prior to termination of training at the institution last attended. Veterans Administration approval for a change of course within an institution or upon transfer to another institution must be secured prior to the end of the last semester under the former course. Regulations permit no more than two changes of course while in training under the G. I. Bill. The second change is possible only if recommended as the result of advisement at

guidance tests administered by the Veterans Administration. Subsequent requests may be approved only for courses of less than thirty weeks duration leading to employment in critical occupations. Once a veteran has failed to comply with requirements governing changes of course or institution, it is not possible for him to receive further benefits. Veterans who have last used their G. I. Bill for correspondence work may not change to resident training in the same course, but only to more advanced instruction by correspondence.

Only eligible veterans initially discharged after July 25, 1947, and veterans who enlisted or re-enlisted between October 6, 1945, and October 5, 1946, under Public Law 190 (the Voluntary Recruitment Act of 1945) may initiate their training after July 25, 1951. These veterans must be registered under the G. I. Bill four years from the date of their first discharge after July 25, 1947, and they must re-register under the Bill continuously thereafter to retain their eligibility.

Veterans re-called to active duty before their G. I. Bill deadline date may be allowed to resume training within a reasonable period following their discharge, provided former progress had been satisfactory. It is not possible, however, to initiate training after the deadline if the G. I. Bill has never been used. The Veterans Administration Regional Office will determine eligibility on an individual basis.

Procedure for Registration Under the G. I. Bill

1. Obtain a valid Certificate of Eligibility from the Veterans Administration, 366 West Adams Street, Chicago. A copy of discharge papers must accompany this application. A Certificate to be used in this University must show the name of the University and the name of the course in which the veteran will register.
2. Keep the Certificate until the day of registration for classes. It will not be accepted before that time.
3. Bring the form and \$5.00 for the general deposit fee to registration. Books and supplies will be furnished.

Previous Training Under the G.I. Bill

Those veterans previously registered at another school under the G. I. Bill and who conform to the requirements mentioned above should:

1. Obtain a notice of termination of training (V. A. form 7-1905e) from the former school prior to the termination of their training in that school.
2. Present this form at once to the Veterans Administration, 366 West Adams Street, Chicago. It is an application for a supplemental Certificate of Eligibility.

PUBLIC LAW 16

Students receiving educational benefits under the national Vocational Rehabilitation Act should be certain that there is an authorization on file for them at the University by the time they are to register. Early notification of intention to enter training should be given to the Veterans Administration Training Officer.

TRANSFERS FROM URBANA OR GALESBURG

Students previously registered under a Certificate of Eligibility on the Urbana campus and who wish to transfer to the Chicago Undergraduate Division will be eligible to continue training under the G. I. Bill only if they were registered in Urbana under the Bill for the entire semester immediately preceding the transfer. They may use the same Certificate only if they intend to register at the Undergraduate Division in the same course as that in progress in Urbana. If a veteran intends to enroll in a different course at Navy Pier, he must apply for a new Certificate of Eligibility prior to the end of his last semester in Urbana.

Those students transferring to the Chicago Undergraduate Division from the Urbana campus are responsible for requesting the transfer of their Certificates or Letters of Eligibility to Navy Pier; they are not transferred with academic records. To request a transfer of these records, notify Mr. E. T. Sanford, Division of Special Services for War Veterans, 258 Administration Building (West), Urbana, Illinois.

Veterans who were last registered under the G. I. Bill at the Galesburg Division and who, in accord with the provisions outlined above, are still eligible for benefits should also send a written request for transfer of records to the above address. All files are now in the Urbana office.

Veterans who have attended either Urbana or Galesburg under Public Law 16 must also notify their Training Officer of their intention to transfer to the Chicago Undergraduate Division.

VETERANS WHO HAVE NOT OBTAINED AN AUTHORIZATION

Veterans who do not have an authorization for training from the Veterans Administration at the time of registration will be required to pay tuition and fees and to buy all necessary books and equipment. A refund will be made when the authorization is presented to the University. Information concerning education under the G. I. Bill or Public Law 16 is available from the Office of Admissions and Records Room 15, Window E.

MILITARY SCHOLARSHIPS

Veterans no longer eligible for the G. I. Bill may be eligible for the State Military Scholarship. A veteran who served between September 16, 1940, and July 25, 1947, and received an honorable discharge will qualify for this four-year tuition scholarship if he was a resident of Illinois or a student in the University of Illinois at the time of entering service. No examination or minimum grade average is required. Information and application blanks are available from the Office of Admissions and Records, Room 15, Window E.

STUDENT WELFARE

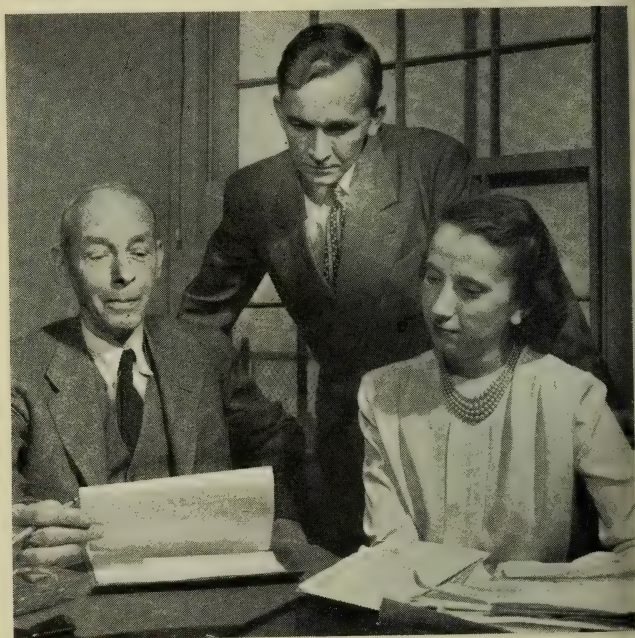
The University's interest in the individual student extends beyond the class room to include each student's personal adjustment to college life. To this end, the University provides a broad program of educational, vocational, and personal counseling, instruction in healthful living, and extracurricular activities, both social and cultural.

Aid in adjustment to college life begins before the student enrolls at the Chicago Undergraduate Division, with the services of the Student Counseling Bureau available to prospective students seeking help in planning their college careers. New students have an opportunity to meet the deans and directors at a special meeting at the start of each semester. At the beginning of the fall semester, an orientation period program is arranged by the Student Congress to introduce new students to extracurricular activities.

Student artists at work



Counseling facilities of the offices of the Dean of Students, the Dean of Men, the Dean of Women, and the Student Counseling Bureau are available to students at all times during their college work at the Chicago Undergraduate Division. Students are urged to discuss specific educational problems with their instructors. Members of the instructional staff hold weekly office hours for conferences with individual students.



**Counselors for student problems —
Edwin A. Wolleson, Dean of Students,
Warren O. Brown, Dean of Men,
Ann Bromley, Dean of Women**

DEAN OF STUDENTS

The Dean of Students is in charge of most matters of student welfare and activities. As part of his organization the Director of Health Services, the Dean of Men, the Dean of Women, and their assistants are general advisors to whom students may turn for assistance and advice. Details of these counseling services are given in the following sections.

In addition, the Dean of Students is the administrative officer responsible for all extracurricular activities and is charged with the co-ordination of the extracurricular programs of the recognized student clubs and organizations. The Committee on Student Affairs serves in an advisory capacity to the Dean of Students in extracurricular matters. He is also advisor to foreign students at the Chicago Undergraduate Division.

In connection with the responsibility for student welfare, the Dean of Students is authorized to attend sessions of the Disciplinary Committee, but has no vote.

DEAN OF MEN

The Office of the Dean of Men is organized for the primary purpose of aiding men students. The work of the Dean of Men is in counseling students and advising them on any matters which they wish to bring to him. He is available for individual conferences with students daily.

The Dean of Men takes an active part in student extracurricular affairs through his assignments as the secretary of the Committee of Student Affairs, chairman of the Finance Committee for Student Organizations and secretary of the Student Organizations Fund. He also serves as adviser to Phi Eta Sigma, national scholastic honorary for first-year men students.

The Student Employment Division which assists needy students with contacts for part-time employment and the Hospital and Medical Service plan are under the supervision of the Dean of Men. Attendance records for both veteran and non-veteran students are maintained by the Office of the Dean of Men.

DEAN OF WOMEN

The Office of the Dean of Women is the clearing place for the problems of women students. Students are urged to come with questions that inevitably arise—social, personal, academic, or financial.

In addition to the friendly, sympathetic counseling of women students, the Dean of Women serves as the advisor to women's organizations at the Chicago Undergraduate Division and as sponsor of Alpha Lambda Delta, national scholastic honorary for freshman women.

All student social events are coordinated and unified through her office in her capacity as chairman of the Administrative Council Committee on Social Events, Calendar, and Recreation. She offers helpful assistance to student groups in organizing dances, entertainments, special events, and other all-University functions.

Scholarships

Several types of scholarships are available to undergraduate students in the University of Illinois. On the basis of competitive examinations open to high school graduates each June, a few four-year tuition scholarships are awarded in each county in Illinois. Service in the Armed Forces during World Wars I or II entitles many veterans to the Military Scholarship. Each member of the General Assembly may nominate annually one student from his district for a scholarship. In addition, a number of scholarships are awarded by the University Scholarship Committee each spring for the following school year. All of the scholarships offered, together with the requirements for each, are listed in an information folder available upon request from the Office of Admissions and Records at Navy Pier.

Undergraduate scholarships usually cover tuition charges only. Although some are available only to students in a specific course, the majority may be used in any of the colleges. Students now enrolled may apply for a scholarship for any year; a few scholarships, however, may be awarded only to applicants without college experience. Information regarding scholarships may be obtained from the Office of the Dean of Students or the Office of Admissions and Records, Room 15.

Loan Funds

Loan funds are of two general classes: (1) emergency loan funds, and (2) long term or regular loan funds. Most of these funds have special qualifications which must be met by applicants.

Detailed information regarding loan funds may be obtained from the Office of the Dean of Students.

Student Employment

For students who find it necessary to earn a portion of their expenses, the Student Employment Division in the Office of the Dean of Men maintains a list of part-time jobs available, both in University offices and in industry and business in the Chicago area. Applications for part-time positions should be filed with the Student Employment Manager, Room 313.

The student who expects to be employed will find it to his advantage to arrange his class schedule so that consecutive hours are free each day. Employment for the first-year student should be a matter of necessity rather than choice.

Hospital and Medical Service

A Hospital and Medical Service fee of five dollars is charged each student at the time of registration to provide ward care in an approved hospital for a period not to exceed twenty-eight days in any semester. In addition, while confined to a hospital or to home, a substantial payment is made toward the attending physician's charges, usually sufficient in the case of minor illnesses to give complete protection. There is also an allowance for laboratory tests, anesthetic or administration thereof, use of operating room, medicine, drugs, and dressings. (X-ray is excluded.) The Hospital and Medical Service plan is under the supervision of the Dean of Men.

Note: A student who presents evidence of participation in any other group insurance system providing the same benefits as those covered by the University fee may petition, through the Office of the Dean of Men *during the first ten days of instruction*, for a refund of this fee.

HEALTH SERVICE

The University maintains a Student Health Service to promote better physical and mental health among the students at the Chicago Undergraduate Division. Physical examinations, given by the staff of

Counseling and diagnosis—Health Service



the University Health Service, are required of all students prior to the time of their first registration and each year thereafter. Chest X-rays are required as part of the physical examination. Immunizing inoculations for smallpox, tetanus, diphtheria, influenza, and typhoid fever are available to students free of charge.

The staff of five physicians instruct classes in hygiene and sanitation as follows:

HYGIENE 102. PERSONAL AND ENVIRONMENTAL HYGIENE.
—Required of all undergraduate women during their first year of residence. I, II; 2 hours.

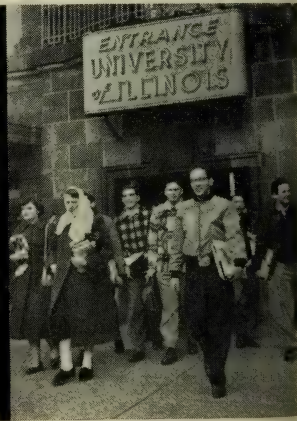
HYGIENE 105. PERSONAL AND ENVIRONMENTAL HYGIENE.
—Required of all undergraduate men during their first year of residence. I, II; 2 hours.

As the functions of the Health Service are primarily educational and preventive, its staff does not assume responsibility for the care of students beyond giving medical advice, emergency treatment, and vaccinations. It is emphasized that advice to students contemplates a real concern for the best treatment whenever indicated and that the discussion of student welfare problems with the staff of the Student Health Service is encouraged. Members of the staff are available at all times for conferences with the students about individual health problems. The Health Service is located on the third floor at the east end of the Pier. The office is open from 8 a.m. to 5:30 p.m. daily and from 9 a.m. to 12 noon on Saturdays and during vacation periods.

A popular spot for conversation and study



Heading for home



EXTRACURRICULAR ACTIVITIES

Student extracurricular activities are recognized as an important part of the student's life and are encouraged in part as an adjunct to curricular courses; to develop individual talents in speech, music, drama, journalism, radio production, etc.; and to develop qualities of leadership, personality, and character. Forty-three student clubs and organizations are active on the campus. These groups sponsor varied social and cultural activities for the benefit of the entire student body.

The Office of the Dean of Students is responsible for the administration and coordination of all extracurricular activities. Functioning in an advisory capacity are the Committee on Student Affairs and the Student Congress.

The student government organization, the Student Congress, is comprised of four officers and fourteen representatives selected by vote of the entire student body at general elections each semester. Officers of the Congress serve on the Committee on Student Affairs.

Joint student-faculty administrative committees supervise the operating policies of student organizations. These committees are composed of a faculty representative of the Committee on Student Affairs and two members of the Student Congress.

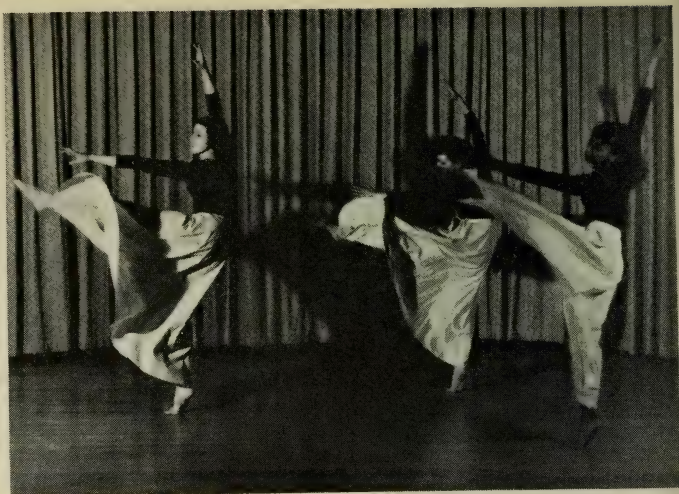
Students are provided an opportunity for experience in journalism through the weekly student newspaper, the *Pier Illini*, and the yearbook, the *Brave*, both written and edited entirely by students. Engineering students edit the Chicago Undergraduate Division section of the *Illinois Technograph*, the University of Illinois engineering periodical.

Backing the team



Concentration on chess





Modern dance recital

Supplementing classroom work, three language clubs, the Classics Club, the Commerce Club, the Geography Club, and the International Relations Club provide cultural programs open to all students. Engineering, architecture, chemistry, and pre-medical students may take part in the activities of their respective professional societies, several of which are affiliated with national professional organizations.

Students interested in music and drama may seek membership in the University Choir, the Theatre Guild, the Radio Production Club, the dance band, or the orchestra. Extracurricular organizations in athletics and physical education include the Varsity Lettermen's Club, Orchesis, the modern dance organization, and the Women's Athletic Association.

All-University dances are sponsored by the University dance committee. Other varied student interests include a chess club, a photography club, and an amateur radio organization.

Honorary scholastic societies include Alpha Lambda Delta for freshman women and Phi Eta Sigma for freshman men.

THE SPEECH CLINIC

The services of the Speech Clinic are available to those students who want assistance in correcting speech difficulties and to students who desire to increase their effectiveness and fluency in talking to others. Students who stutter, lisp, have foreign accents, hearing deficiencies, or voice problems are aided by the clinic. The clinic also assists students

with the problems that sometimes arise in appearing and talking before groups. Students planning theatrical or teaching careers are aided in meeting professional speech requirements.

The clinic is equipped with modern testing instruments and the staff is scientifically trained in diagnosis and treatment. Students may consult with the Speech Clinic by making appointments in Room 300, the Student Counseling Bureau office. No charge is made for the service.

DEBATING

The forensics program at the Chicago Undergraduate Division provides an opportunity for students to gain experience in debating and discussion. All students, including those without previous experience, may take part in the forensics activities.

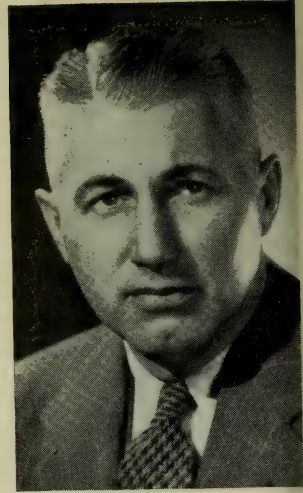
The debating program begins each fall with an instructional program for newcomers and an intramural tournament. From mid-November to mid-April a full schedule of intercollegiate competition is maintained. In addition to Chicago-area colleges and universities which come to the Chicago Undergraduate Division for debates, guest teams from outside the city have included colleges and universities from Florida, Indiana, Iowa, Michigan, Missouri, Ohio, and Wisconsin. Debaters from Navy Pier also attend tournaments in Illinois and nearby states where they meet debaters from schools throughout the country.

Since its organization in 1947, the debate team has engaged in both junior and senior college competition, where the team has won honors and has maintained an excellent competitive record.

Problems of national and international interest are the topics for the forum discussions conducted as part of the forensics program. During the school year, the forum discussions are held every two weeks with speakers from visiting colleges and universities. A number of major universities and colleges in Illinois and adjacent states have participated in the forums. The talks by speakers from the Chicago Undergraduate Division and from the visiting schools are followed by audience participation periods.

Debating and the forum discussions are under the supervision of the Forensic Council, a faculty committee appointed by the Dean of the Chicago Undergraduate Division. Members of the faculty of the speech department work directly with student participants.

John O. Jones
Director of Athletics



ATHLETICS

The Chicago Undergraduate Division participates in ten varsity sports—football, basketball, baseball, cross-country, track, wrestling, swimming, gymnastics, tennis, and golf. In accordance with a special ruling, freshmen are allowed to participate in varsity sports without this participation affecting the three-year eligibility rule.

A special feature is the extensive intramural program in which students, with the exception of those on varsity squads, can elect to take part in boxing, wrestling, badminton, table-tennis, volleyball, basketball, swimming, gymnastics, handball, weight lifting, tennis, track, and softball. The intramural and intercollegiate programs are under the supervision of an athletic sub-committee of student and faculty representatives. Both programs are financed through funds from student activities fees.

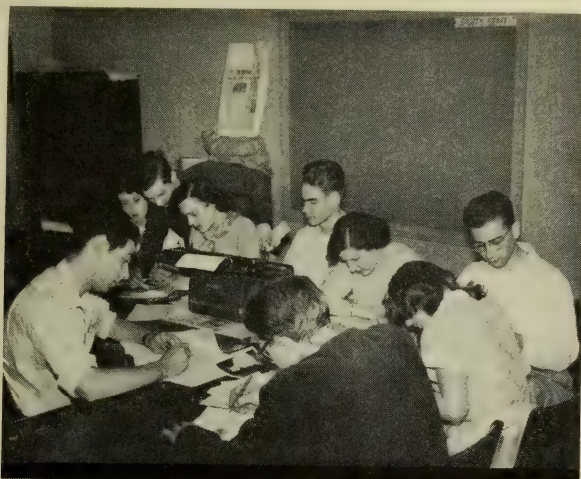
The Chicago Undergraduate Division Gymnasium, adjacent to the west end of Navy Pier, is the center of the intramural and physical education programs. Basketball games, wrestling meets, and gymnastics meets are also held in the huge gymnasium which has floor space for eight full-size basketball courts.

A staff of 14 coaches directs the Chicago Undergraduate Division athletic activities. Varsity letter awards are made to athletes who meet the participation requirements of intercollegiate competition, to sophomore managers, and to sophomore cheerleaders.

UNIVERSITY SERVICES

STUDENT COUNSELING BUREAU

The purpose of the Student Counseling Bureau is to help students utilize their college opportunities and to aid them in making realistic plans for later life. The staff of the Bureau includes full-time professional specialists and qualified faculty counselors. On the basis of information obtained from interviews and scientific tests of aptitude, achievement, interest and personality, these counselors help the student answer questions such as: Do I have the necessary aptitudes, interests, and personality characteristics for the course of study and for the vocation I am considering? What is the probable demand for workers in the vocation I am planning to enter? What grades should I expect to earn at the



Editing the weekly newspaper



Holiday formal

University? How can I improve my concentration, and speed up my reading ability?

In addition to such vocational and educational questions, the Bureau also provides counseling services for all types of personal and psychological questions such as overcoming fear of examinations, speech problems, the lack of friends, and needs for increased personal effectiveness.

All the following services are important aspects of the Student Counseling Bureau's work with students.

Freshman Guidance Testing	Occupational Information
Individual Testing	Selection of College Majors
Reading and Study Skills	Personal Problems Counseling
Counseling	

Trained counselors in the Bureau will be available throughout the entire year. Any University student can make an appointment in Room 300. If requested through the Admissions office, these services are also available without charge to Illinois high school seniors and graduates before entering college.

Library Reading Room



UNIVERSITY LIBRARY

The Library of the Chicago Undergraduate Division is outstanding among the newer college libraries of the nation. Although only five years old, it contains nearly 55,000 volumes, all of which have been carefully chosen with the institution's undergraduate curricula in mind, as well as the general and recreational interests of students and faculty. Orders for new books are being placed constantly, so that it is expected that the Library will contain 80,000 selected volumes within the next few years.

While no attempt will ever be made to duplicate scholarly research facilities already available in the city, strong emphasis is placed on general reference and readers' advisory service, with close liaison maintained with the teaching program and student activities. An exceptional collection of general and special encyclopedias, atlases, bibliographies, dictionaries, handbooks, yearbooks, and directories (5,000 volumes) has been assembled. A complete dictionary catalog is provided, and 30 periodical indexing services are available. The subscription list includes nearly 600 magazines and journals. Twenty-year back files of 250 particularly useful periodicals have already been bound for permanent reference use and are available on open shelves. An extensive vertical-file pamphlet collection and excellent microfilm reading facilities are also provided.

The Library has two service areas. The open-shelf Main Reading Room is located on the second floor at the east end of the Pier. It offers liberal reference and circulation facilities, in addition to well-lighted study space for 800 students at 100 large tables. The Reserve Book Station, located near the street car line, makes assigned reading materials conveniently available. The Library staff of 23 includes 9 trained librarians, with academic rank, and 14 full-time clerks. Library hours are 8:30 a.m. to 5 p.m., Monday through Friday, and 9 a.m. to 12 noon on Saturday.

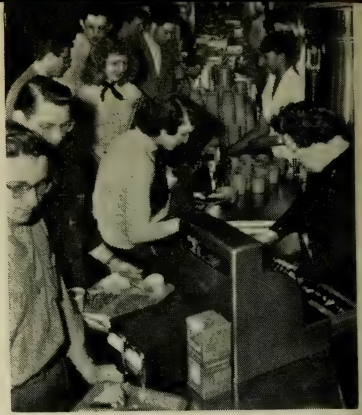
UNIVERSITY BOOKSTORE

The University Bookstore is operated on a cooperative basis to provide texts and supplies as required by the various courses at the Chicago Undergraduate Division.

Students and faculty members may participate in a "share-the-profit" plan at the end of each year if the store realizes a profit for the operating year.

The Bookstore is located at Room 87. It is open daily, Monday through Friday, from 8:30 a.m. to 4:30 p.m. During the registration period, the Bookstore is open from 8 a.m. to 6 p.m.

Mealtime in the cafeteria



FOOD SERVICE

The University operates non-profit food service facilities for the convenience of students, faculty, and staff. The student cafeteria serves well-balanced, low-cost lunches and breakfasts. The cafeteria is located at the east end of the Pier. A soda fountain, serving sandwiches and beverages, is operated in connection with the cafeteria.

A popular student spot between classes is the snack bar located at the entrance to the Pier, adjacent to the reception lounge. In addition, a dining room at the east end of the Pier offers cafeteria-style service to members of the faculty and staff.

Stop at the soda fountain



COLLEGES
Curricula and
COURSES

COURSES REQUIRED OF ALL STUDENTS

The following course requirements must be met by all students registered at the Chicago Undergraduate Division. These subjects are to be begun in the first semester of the freshman year, except as otherwise provided, and are to be continued until these requirements are completed.

1. Hygiene—One semester. Credit may be obtained by a proficiency examination. (Veteran students who have completed basic training in the Army, Navy, Marine Corps, Coast Guard, or USMS receive credit for hygiene). Transfer students having sophomore standing are exempt from hygiene.

2. Physical Education—Four semesters. Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Men entering the University with less than 56 semester hours of credit are required to secure four semesters of credit in physical education, including the amount transferred. (Veteran students who have completed basic training while in the service are exempted.)

Physical education may be deferred only by written request through the physical Education Department which will make recommendation to the dean of the student's college.

3. Rhetoric—Two semesters (Rhetoric 101 and 102). All students entering the University as freshmen direct from secondary schools are required to take a placement test in rhetoric. A satisfactory proficiency in the use of written English is a requirement for all undergraduate degrees. Students who receive grades of "C" or "D" in Rhetoric 102, or its equivalent, are required to take an English qualifying examination before graduating. Those who fail to pass the qualifying examination are required to pass an extra semester course in rhetoric (Rhetoric 200).

The Grading System

The following grades are given in the University of Illinois:

- A—Excellent
- B—Good
- C—Fair
- D—Poor (lowest passing grade)
- E—Failure

The University does not use plus or minus signs with the letter grades. Further, there are no numerical equivalents.

A student with a failure may have a special examination on the recommendation of the head of the department approved by the dean of his college, and on payment of a fee of \$5.00 or he may take courses in sequence, with the approval of the department.

Other symbols in use are:

W—"Withdrawn" from the course without penalty.

Ex—Absent from the final examination for reasons acceptable to the dean of the college concerned and hence "Excused." (Entitles the student to an examination later without fee, but becomes a failure if not removed during the first semester that the student is registered following the giving of the grade of "Ex.")

The student may also remove an Ex grade by registering in the course and completing it with a passing grade or better during the next semester in which he is registered. If the student, following this procedure, completes the course, the Ex from the semester before becomes a "W" and whatever grade he earns in the course the second time is the official grade in the course. This means that even if the student fails the course the second time, the Ex grade still remains "W."

Ab—"Absent" from the final examination without excuse acceptable to the dean of the college concerned (this grade is construed to be a failure). A student may remove an Ab grade from his record by taking a special examination, fee \$5.00, during the next semester in which he is in residence, but not to be taken within ten days of the final examination period.

Inc—The grade of "Incomplete" is no longer authorized except in the required work in physical education. Except in this department instructors are required to assign a definite grade representing both the quality and the quantity of the work accomplished.

Grade-Point Average

In computing the grade-point average, weighted values are given to the grades as follows: A-5 grade points; B-4; C-3; D-2; E(failure)-1. To compute the grade-point average, multiply the number of hours of each grade by the weight, add the products, and divide by the number of hours. Thus, if you earn 3 hours of A, 6 of B, 3 of C, and 2 of D, the computation of your grade-point average is as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>	
A	3	5	15	
B	6	4	24	
C	3	3	9	
D	2	2	4	52
	14		52	$\frac{52}{14} = 3.714$

Your grade-point average is 3.71.

Robert P. Hackett, Associate Dean
Commerce and Business Administration



COLLEGE OF COMMERCE AND BUSINESS ADMINISTRATION

Through knowledge of modern business practices and the fundamental principles on which economic systems operate, the College of Commerce and Business Administration seeks to develop in students the intellectual powers necessary for administrative careers. For this purpose it offers a unified program of basic studies for lower classmen. Though the factual contents of many of the courses are directly useful in specific vocations—accounting, banking, selling, teaching—students should expect to serve an apprenticeship in the fields they enter after graduation from this college if they wish to prepare themselves for higher positions.

While concentrating in a special field, students are encouraged to elect courses offered in other colleges of the University and to secure as liberal an education as possible to avoid the narrowing effects of early specialization.

The program for the first two years is organized about a nucleus of courses in accountancy and economics, mathematics and science, language and literature, rhetoric and speech. While it is designed primarily as preparation for the third and fourth years of the curriculum, it affords a well-balanced combination of studies to those who are in college for only two years of preparation for work in the business world.

Students who have completed this two-year program with a satisfactory scholastic record are qualified for admission to the Upper Division of the College of Commerce and Business Administration or for admission to the College of Education, or the College of Law, or the School of Journalism and Communications. Students transferring to other colleges after completing only the two-year program of the College of Commerce receive their degrees not from the College of Commerce and Business Administration, but from the college to which they transfer on completing the requirements of that college.

All of the courses offered in the College of Commerce are open to students in other undergraduate colleges of the University, provided proper prerequisites are met.

SUMMARY OF REQUIREMENTS FOR GRADUATION

A candidate for the degree of Bachelor of Science in a field of the College of Commerce and Business Administration must (1) meet the general University requirements with respect to registration, residence, scholarship, and fees; (2) have a minimum of 130 semester hours of credit, including credit for the required work in rhetoric, hygiene, physical education, and military science, and including a minimum of 60 hours in courses given in the College of Commerce; and (3) complete the requirements of one of the fields of concentration (accountancy, banking and finance, commerce and law, commercial teaching, economics, industrial administration, management, marketing, public affairs, or secretarial training) with an average grade of not less than "C" in all courses counted toward graduation, whether taken at the University of Illinois or elsewhere.

ELECTIVES

Whenever a program for any session includes all possible required courses at that time, and it seems desirable to add other courses to make a reasonable number of hours, certain electives are recommended. Prerequisites for these electives should be observed carefully. These electives should be directed toward requirements in the Upper Division. They include management, marketing, history, philosophy, political science, psychology, and sociology. Any advice desired on these electives may be obtained at the office of the dean or from the advisor at the time of registration.

COMMERCE AND LAW

Students interested in obtaining a legal education may take their pre-legal work in the College of Commerce and Business Administration. This preparation should be of particular interest to students looking forward to some phase of the legal practice involving business or corporation law. The first two years are the same as the program for the Lower Division shown on page 39. The third year includes requirements



Solving problems in statistics

of special value to the pre-law student. The courses involved here include commerce courses as well as those in political science, history, and philosophy.

When a student has completed 100 hours in the College of Commerce and Business Administration and 30 hours in the College of Law, including all required courses, he will be granted the degree of Bachelor of Science in Commerce and Law. Upon completion of the requirements of the two remaining years in the College of Law, the law degree will be granted.

COMMERCIAL TEACHING

Since there are certain state requirements for certification of teachers in Illinois high schools, a special program to meet these requirements for commercial teachers has been established in the College of Commerce and Business Administration. This program is based primarily on the Lower Division program shown on the following page with adjustments not only to comply with the state laws but to prepare the student in the best way possible for a teaching career. Students interested in this program should consult with the dean of the college.

PRE-JOURNALISM

Students desiring to enter the School of Journalism and Communications may do so after the completion of two years with proper grade average in the College of Commerce and Business Administration. Those interested in advertising and other business phases of journalism may find consideration of this program profitable. The two-year program for this purpose is the same as that shown on the following page.

PROGRAM FOR THE LOWER DIVISION¹
(SUBJECT TO MINOR CHANGE)

First Year

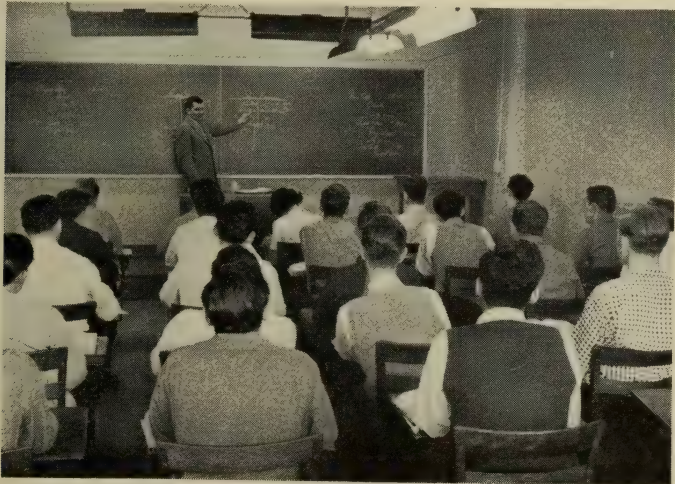
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 101 or 102—Principles of Accounting	3 or 2	Accy. 105—Accounting Procedure	3
Econ. 101—Economic History of U.S.	3	Econ. 100—Introduction to Business	3
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Science and/or College Algebra ² ..	5-8	Science and/or College Algebra ² ..	3-5
Physical Education	1	Hygiene 102 or 105.....	2
Electives	1-4	Physical Education	1
<i>Total</i>	15-18	<i>Total</i>	15-17

Second Year

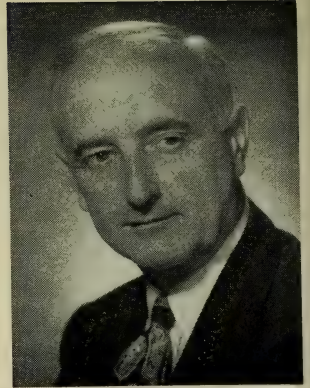
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Accy. 106—Cost Accounting	3	Accy. 108—Intermediate Accounting	3
Econ. 102—Principles of Economics	3	Econ. 103—Principles of Economics	3
Language or Literature ³	4	Language or Literature ³	4
Rhet. 151—Business Letter Writing	2	Econ. 170—Elementary Statistics.	3
Speech 101—Effective Speaking..	3	Physical Education	1
Physical Education	1	Electives	1-4
Electives	0-2	<i>Total</i>	15-18
<i>Total</i>	16-18		

¹The Lower Division program applies to all fields except commercial teaching. For the requirements in that field consult with the dean of the college.
²Mathematics and Science—All first-year students must elect college algebra. They must elect sufficient courses in mathematics (including college algebra) or science to amount to a total of 10 hours for the year. These courses may be taken from the following subjects: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, zoology.
³Language—Students must obtain credit in at least 8 hours of English literature, or obtain a reading knowledge of a modern foreign language (French, German, Italian, Spanish) equivalent to that resulting from four semesters of study of a foreign language when commenced in college.

Lesson in accountancy



Frederick W. Trezise, Associate Dean
Engineering Sciences



COLLEGE OF ENGINEERING

To prepare men for professional work in engineering and for responsible positions of a technical and semi-technical character in industry, commerce, and government, the College of Engineering at the Chicago Undergraduate Division provides training in the mathematical and physical sciences and their applications to the design, construction, and operation of industrial plants and public and private works of all kinds.

The curricula in this college, though widely varied and specialized, are built on a general foundation of scientific facts and theories applicable to many different fields. Work in the classrooms, laboratories, shops, and drafting rooms is correlated by practical problems which the students solve by methods similar to those of practicing engineers.

In addition to the fundamental and technological courses in each curriculum, some cultural courses are required, such as history, economics, and rhetoric, and others are elective, so that each student may broaden his program. While each student pursues a curriculum of his own choice according to the field of his particular interest, all students must take certain courses. Basic courses in mathematics, chemistry, physics, rhetoric, and general engineering drawing are required in the first two years.

At the Chicago Undergraduate Division the first two years of courses are offered in the following fields: aeronautical engineering, ceramic engineering, civil engineering, electrical engineering, engineering physics, general engineering, mechanical engineering, metallurgical engineering, and mining engineering. Those few advanced courses which are not available here are properly noted.

Instruction in all courses is designed primarily to prepare the student to enter the College of Engineering on the Urbana campus of the University of Illinois in his third year.

SUMMARY OF REQUIREMENTS FOR GRADUATION

Students in the College of Engineering who meet the University's general requirements with respect to registration, residence, and fees, and who maintain satisfactory scholastic records in this college, are awarded degrees appropriate to their curricula. Each curriculum requires a minimum of 136 semester hours of credit, not counting the required work in military science and physical education.

Each curriculum leads to the degree of Bachelor of Science and may ordinarily be completed in four years. A graduate of one curriculum ordinarily can qualify for another baccalaureate degree by doing a fifth year of work, consisting of 30 to 36 semester hours, acceptable to the faculty of this college, providing plans have been made looking toward such an arrangement at the beginning of his third year.

A graduate of the College of Liberal Arts and Sciences, or any other college of equal standing, who has adequate training in mathematics, physics, and mechanics to enable him to begin the third year of a curriculum in the College of Engineering, can usually qualify for the degree of Bachelor of Science from this college by two and one-half years of work.

ELECTIVES AND OPTIONS

Non-technical electives for students in the College of Engineering include all courses offered in the College of Liberal Arts and Sciences, the College of Commerce, and certain courses in the College of Engineering. Technical electives include practically all courses in the College of Engineering not required in the student's curriculum, except all elementary work in drawing.

Departmental electives and technical options are restricted to courses of a technical character as listed under this classification by each department. Options are groups of related courses in a special field of subject matter.

Most of the curricula in the College of Engineering provide an opportunity for concentration of the student's effort in the senior year along

lines of his particular interest, within the broad field of his chosen curriculum. This is accomplished by curriculum options, which are groups of subject-matter related to recognized fields of concentration in professional engineering practice.

COMMON PROGRAM FOR FRESHMAN

Freshmen in the College of Engineering take this program unless otherwise specified in the curricula outlined on the following pages.

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Eng. 100—Engineering Lectures..	0	Chem. 104—Chemistry of the Metallic Elements	4
Chem. 102 or 103—General Chemistry	3 or 4	G.E.D. 102—Descriptive Geometry	4
G.E.D. 101—Elements of Draw- ing; or G.E.D. 104—Advanced Drawing	4	Math. 122—Analytic Geometry ..	4
Math. 112—College Algebra	3	Rhet. 102—Rhetoric and Composition	3
Math. 114—Plane Trigonometry; or Math. 115—Advanced Trig- onometry	2	Hygiene 102 or 105.....	2
Rhet. 101—Rhetoric and Composition	3	Physical Education	1
Physical Education	1		
<i>Total</i>	16-17	<i>Total</i>	18

CURRICULUM IN AERONAUTICAL ENGINEERING

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
G.E.D. 103—Aircraft Drafting and Lofting	3	Math. 142—Integral Calculus....	3
Math. 132—Differential Calculus.	5	Phys. 104—General Physics	5
M.E. 182—Manufacturing Processes	3	Speech 101—Principles of Effective Speaking or Non-Technical Elective	3
Phys. 103—General Physics	5	T.A.M. 156—Analytical Mechanics (Statics and Dynamics).....	5
Physical Education	1	Physical Education	1
<i>Total</i>	17	<i>Total</i>	17

CURRICULUM IN CERAMIC ENGINEERING

First Year¹

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Cer. E. 101—Introduction to Ceramic Engineering ²	3	Cer. E. 102—Ceramic Processes and Equipment ²	3
Chem. 123—Quantitative Analysis for Engineers ³	5	Geol. 130—General Mineralogy ² ..	3
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus....	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	19	Physical Education	1
		<i>Total</i>	17

CURRICULUM IN CHEMICAL ENGINEERING

This curriculum is administered by the College of Liberal Arts and Sciences. See pages 54 and 55.

CURRICULUM IN CIVIL ENGINEERING

First Year⁴

Common Program for Freshmen (page 42).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
C.E. 103—Route Surveying ⁵	3	C.E. 235—Plain Concrete.....	2
C.E. 160—Building Construction. 3		Geol. 150—Engineering Geology ⁶ . 3	
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus... 3	
Phys. 103—General Physics..... 5		Phys. 104—General Physics..... 5	
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	17	Econ. 108—Elements of Economics; or Speech 101—Principles of Effective Speaking	3
		Physical Education	1
		<i>Total</i>	19

¹Common Program for Freshmen (page 42), except that Chem. 105 and Math. 117-127 are substituted for Chem. 104 and Math. 112, 114, and 122.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

³Not offered at Chicago Undergraduate Division; substitute Chem. 122—Elementary Quantitative Analysis.

⁴C. E. 101 and 102 are required courses which will be taught only at the summer surveying camp following the freshman year.

⁵Offered during the fall semester only.

⁶Eight hours of credit in foreign language (French, German, or Spanish) may be substituted for Geol. 150 (3 hours), Econ. 108 or Speech 101 (3 hours), and approved electives (2 hours).

CURRICULUM IN ELECTRICAL ENGINEERING

First Year

Common Program for Freshmen (page 42).

Second Year

FIRST SEMESTER	HOURS
Econ. 108—Elements of Economics	3
Math. 132—Differential Calculus	5
Speech 101—Principles of Effective Speaking	3
Phys. 103—General Physics	5
Physical Education	1
<i>Total</i>	<i>17</i>

SECOND SEMESTER	HOURS
E.E. 126—Electric Circuits and Fields	4
Math. 142—Integral Calculus	3
Phys. 104—General Physics	5
T.A.M. 154—Analytical Mechanics (Statics and Dynamics)	4
Physical Education	1

Total17

CURRICULUM IN ENGINEERING PHYSICS

The purpose of this curriculum is to prepare students for investigations in engineering problems calling for a knowledge of physics and mathematics or chemistry, and for positions in certain industries which prefer men with a thorough education in basic science.

Students in the engineering physics curriculum, when registering for advanced undergraduate courses in physics at any stage in that curriculum, must have a grade average of at least 3.5 in all subjects, exclusive of the basic courses in military training and physical education, and a combined grade average of at least 3.5 in all subjects in mathematics and physics taken prior to such registration. Transfer students must have a corresponding record in the institution from which they transfer, and must maintain such status at the University of Illinois.

First Year

Common Program for Freshmen (page 42) except that substitution of Chem. 106 for Chem. 104 is advised.

Second Year¹

FIRST SEMESTER	HOURS
German or Approved Elective	4
Math. 132—Differential Calculus	5
Phys. 103—General Physics	5
Physical Education	1
Approved Elective	3
<i>Total</i>	<i>18</i>

SECOND SEMESTER	HOURS
German or Approved Elective	4
Math. 142—Integral Calculus	3
Phys. 104—General Physics	5
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1
Approved Elective	3

Total18

¹The election of Chem. 110, 124, and 234 is advised. Students wishing to emphasize geophysics should elect most or all of the technical options in geology. Five hours must be approved non-technical electives.

CURRICULUM IN GENERAL ENGINEERING

This curriculum provides a fundamental engineering training with moderate emphasis on design and a fixed requirement of fifteen hours in economics, corporation finance, engineering law, and labor problems. Specialization in any field of the student's choice is permitted in the liberal provisions for elective studies, as well as an option by means of which he may elect either structural or machine design. The curriculum is intended for students who do not wish to pursue the more specialized engineering curricula, but who wish to ally themselves with industrial and commercial development in the fields of management, operation, and construction—preparation for which is founded on scientific and engineering facts and disciplines, supplemented by economic and social orientations. A sales engineering option can be readily planned within the elective framework of the curriculum.

First Year

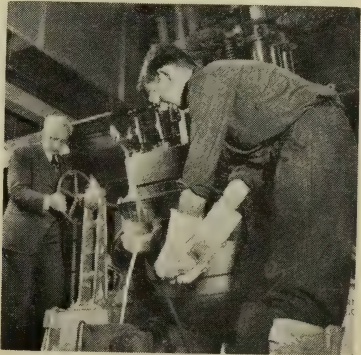
Common Program for Freshmen (page 42).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Econ. 108—Elements of Economics	3	Speech 101—Principles of Effective Speaking	3
Math. 132—Differential Calculus	5	Math. 142—Integral Calculus	3
M.E. 183—Materials Casting; or C.E. 115—General Surveying ¹	3	Phys. 104—General Physics	5
Phys. 103—General Physics	5	T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	1	C.E. 115—General Surveying ¹ ; or M.E. 183—Materials Casting	3
Total	17	Physical Education	1
		Total	17

¹C.E. 115 is not given at the Chicago Undergraduate Division; must be taken at Urbana.

Metal pouring in the foundry



CURRICULUM IN MECHANICAL ENGINEERING

First Year

Common Program for Freshmen (page 42).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
M.E. 171—Mechanism	2	T.A.M. 156—Analytical Mechanics (Statics and Dynamics)	5
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus....	3
M.E. 183—Materials Casting; or		M.E. 184—Metal Processing; or	
M.E. 184—Metal Processing... 3		M.E. 183—Materials Casting ..	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	Physical Education	1
<i>Total</i>	16	<i>Total</i>	17

CURRICULUM IN METALLURGICAL ENGINEERING

First Year

Common Program for Freshmen (page 42) except that Chem. 105 and G.E.D. 106 are substituted for Chem. 104 and G.E.D. 101.

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 123—Quantitative Analysis for Engineers ¹	5	Math. 142—Integral Calculus ...	3
Math. 132—Differential Calculus. 5		Phys. 104—General Physics	5
Phys. 103—General Physics	5	Met. E. 150—Introduction to Metallurgy ²	3
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	16	Physical Education	1
		Approved Elective	3
		<i>Total</i>	17

CURRICULUM IN MINING ENGINEERING

First Year

Common Program for Freshmen (page 42).

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Geol. 150—Geology for Engineers. 3		Geol. 130—General Mineralogy ² ..	3
Math. 132—Differential Calculus. 5		Math. 142—Integral Calculus ...	3
Min. E. 151—Elements of Mining ² 4		Min. E. 152—Fuels ²	3
Phys. 103—General Physics	5	Phys. 104—General Physics	5
Physical Education	1	T.A.M. 150—Analytical Mechanics (Statics)	2
<i>Total</i>	18	Physical Education	1
		<i>Total</i>	17

¹Not offered at Chicago Undergraduate Division; substitute Chem. 122—Elementary Qualitative Analysis.

²Not offered at Chicago Undergraduate Division; must be taken at Urbana.

ARCHITECTURE

(Offered under the College of Engineering)

The curriculum in architecture is a five-year course and is offered with two optional programs. The work for the first year is identical. A field of specialization is selected in the second year.

The general option places the major emphasis on architectural design and includes a substantial program in architectural construction. While the esthetic is emphasized, basic preparation in liberal and scientific fields is required. The aim is to train the student for efficient service as a draftsman or designer in an architectural organization and to provide him with the necessary foundation for future independent practice.

The construction option (architectural engineering) offers a major study in building design, a thorough training in all forms of building construction, and emphasizes the structural and mechanical aspects of architecture. As the curriculum includes $3\frac{1}{2}$ years of architectural design, free-hand drawing, and the history of architecture, the student who is primarily interested in construction can acquire a considerable knowledge of the artistic and utilitarian phases of planning. This option affords a relatively wide range of elective courses in the social sciences, business, engineering, language, and literature. It also provides sufficient training for independent practice as an architectural engineer.

Class in architectural design



ELECTIVES

The electives provided in the two architectural curricula may consist of any courses given in the University and not required in the curricula, not paralleling the subject matter of required courses, and not open to fresh-

men. The following, which are open to freshmen, are also acceptable as electives: History 111, 112, 131; Botany 100, 101; Geography 101, 104, 105; Geology 101; Biology 101; Speech 101, 141; English 111, 112; Accountancy 101. Courses with prerequisite of sophomore standing: Rhetoric 152; Economics 108; English 131; Political Science 150, 151; Sociology 100.

FIVE-YEAR CURRICULUM IN ARCHITECTURE

Students entering as freshmen in September, 1949, and thereafter, follow the five-year curriculum in architecture and architectural engineering as outlined below.

First Year

FIRST SEMESTER	HOURS
G.E.D. 107—Architectural Projections	2
Art 181—Freehand Drawing	2
Rhet. 101—Rhetoric and Composition	3
Math. 117—Combined Freshman Mathematics	5
Hygiene 102 or 105.....	2
Physical Education	1
<i>Total</i>	15

SECOND SEMESTER	HOURS
G.E.D. 108—Architectural Projections	2
Art 182—Freehand Drawing	2
Rhet. 102—Rhetoric and Composition	3
Math. 127—Combined Freshman Mathematics	4
Arch. 101—Introduction to Architecture	3
Physical Education	1
<i>Total</i>	15

Second Year

FIRST SEMESTER	HOURS
Arch. 131—Architectural Design..	3
Art 183—Freehand Drawing	2
Arch. 141—Materials and Methods of Construction I.....	2
Phys. 101—General Physics	5
Elective	3
Physical Education	1
<i>Total</i>	16

SECOND SEMESTER	HOURS
Arch. 132—Architectural Design..	3
Art 184—Freehand Drawing	2
Arch. 142—Materials and Methods of Construction II.....	2
Arch. 113—Architecture and Civilization of the Early Mediterranean Areas	2
T.A.M. 171—Elementary Mechanics	3
Elective	3
Physical Education	1
<i>Total</i>	16

FIVE-YEAR CURRICULUM IN ARCHITECTURAL ENGINEERING

First Year

Common Program for Freshmen (above).

Second Year

FIRST SEMESTER	HOURS
Arch. 131—Architectural Design..	3
Art 183—Freehand Drawing	2
Arch. 141—Materials and Methods of Construction I	2
Phys. 101—General Physics	5
Math. 137—Differential Calculus.	3
Physical Education	1
<i>Total</i>	16

SECOND SEMESTER	HOURS
Arch. 132—Architectural Design..	3
Art 184—Freehand Drawing	2
Arch. 142—Materials and Methods of Construction II.....	2
Arch. 113—Architecture and Civilization of the Early Mediterranean Areas	2
Math. 147—Integral Calculus ...	3
T.A.M. 150—Analytical Mechanics	2
Physical Education	1
<i>Total</i>	15

Harold W. Bailey, Associate Dean
Liberal Arts and Sciences



COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences at the Chicago Undergraduate Division offers the first two years of work in the several professional, pre-professional, and general curricula offered in this college at the Urbana campus. In all these curricula, the first two years are devoted to general basic education with increasing specialization in the last two years. A student who is not certain of his vocational objective at the time of his admission to college has an opportunity to do considerable educational exploration in his first two years or commonly to change his vocational objective without additional time. Such a change after the beginning of the junior year usually cannot be made without loss of time.

It is assumed that upon completion of the two-years' work at the Chicago Undergraduate Division students will transfer to the Urbana campus to continue in their chosen field at the junior level. Students desiring to transfer to institutions other than the Urbana campus of the University of Illinois should familiarize themselves with the requirements of the school of their choice so that they may plan their work most effectively while at the Chicago Undergraduate Division.

The following Liberal Arts and Sciences curricula are offered at the Chicago Undergraduate Division: general, chemistry, chemical engineering, pre-medicine, pre-dentistry, pre-nursing, teacher-training, pre-law, pre-veterinary medicine, and pre-journalism. Content of the courses closely parallels that given on the Urbana campus of the University of Illinois.

General Curriculum

All students who do not elect to follow one of the specialized curricula described below enroll in the general curriculum. The general curriculum requires a number of basic courses in literature or philosophy, social studies and natural sciences, and a reading knowledge of at least one foreign language. Each student must select a major and a minor or a split minor in a field of concentration the last two years.

Because of the wide range of courses open to students in the general curriculum, it is not feasible to specify definite sequences of courses to be taken by any student in each of the four years of this curriculum. Under the guidance of an adviser, each student is expected to plan his own program within the general requirements outlined below. Students at the Chicago Undergraduate Division will find it to their advantage to complete the group requirements listed on pages 51 and 52 in their first four semesters in the University.

SUMMARY OF REQUIREMENTS FOR GRADUATION

Each candidate for the degree of A.B. or B.S. in the general curriculum of Liberal Arts and Sciences must meet the following requirements:

Hygiene—Hygiene 102 or 105.

Physical Education—4 semesters.

Rhetoric—Rhet. 101 and 102 (If C or D in Rhet. 102, student must pass qualifying examination or take Rhet. 200).

Foreign Language—Equivalent of two college years in same language.

U.S. History—One unit of American History or History 151 and 152.

Mathematics—One unit of Algebra and one unit of Plane Geometry or Math. 101 and Math. 102.

Major—20 approved hours in one department.

Minor(s)—20 approved hours in one or two departments.

Advanced hours—30 hours of credit in courses not open to freshmen and

sophomores.

Residence—Either first 88 hours uninterrupted, or last 30 hours uninterrupted at the University of Illinois. For students at the Chicago Undergraduate Division, the last 30 hours must be taken at Urbana.

Average—3.0 (C) minimum average.

Biological Sciences¹8 hours.

Physical Sciences¹8 hours.

Humanities¹8 hours.

Social Sciences¹8 hours.

Total hours—120 hours, excluding basic military and all physical education courses, with not more than one quarter of the work with a grade of D.

¹The eight hours must be taken in approved sequence.

Required Subjects

A. Foreign Language—A reading knowledge of a foreign language (French, German, Greek, Italian, Latin, Portuguese, or Spanish) equivalent to that resulting from four semesters of study of a foreign language commenced in college. To be begun in the first semester of the freshman year, except as otherwise provided, and to be continued until the requirement is completed. This requirement is satisfied by passing French 104, German 104 or 144, Greek 202, Italian 104, Latin 104 or 105, Portuguese 104, Spanish 104, or a more advanced course in any of these languages. Proficiency examinations are offered in all these courses as well as in the more elementary courses in languages. Note: No credit toward graduation is given for a beginning course in a foreign language unless it is continued through a full year. Students planning to enter a graduate college are advised to obtain a reading knowledge of both French and German.

B. Group Requirements¹—To be begun in the freshman year and completed before the senior year. Students at the Chicago Undergraduate Division will find it to their advantage to complete these requirements by the end of their fourth semester. Proficiency examinations may be taken for credit in some of these subjects.

Students who entered college on or after September 1, 1946, are required to complete the following group requirements:

1. *Basic Knowledge*—One unit of American history or Hist. 151 and 152. One unit of algebra and one unit of plane geometry or Math. 101 and 102.
2. *General Education*—An approved two-semester course or sequence of courses in each of the following areas, with a minimum of eight hours credit in each: (a) humanities, (b) biological sciences, (c) physical sciences, (d) social sciences.

¹For students who entered prior to September 1, 1946, the requirements were:

(a) Liberal Arts. A total of fifteen hours chosen from at least three of the following subjects including one course in English or foreign literature or in the history of philosophy: English literature, foreign literature (advanced courses requiring at least two years of college work or its equivalent), economics, history, philosophy, political science, and sociology.

(b) Sciences. A total of fifteen hours chosen from at least three of the following subjects including one course with a minimum of four hours laboratory work a week: astronomy, bacteriology, botany, chemistry, entomology, geography, geology, mathematics, physics, physiology, psychology, and zoology.

ELECTIVES

1. *Liberal Arts and Sciences*—Any course offered in the College of Liberal Arts and Sciences may be used as an elective.
2. *Other Colleges*—Electives totaling as much as but not more than 32 hours may be taken in other colleges and schools of the University and counted toward graduation from this college, in addition to the courses acceptable for major and minor requirements, if such electives are in conformity with the following list approved by the faculty:

Accountancy—A total of 6 hours (including not more than one of the following courses: Accountancy 101, 102, 201).

Agricultural Economics—A total of 6 hours.

Architecture—A total of 15 hours.

Art—A total of 15 hours.

Business Law—A total of 6 hours.

Economics—All courses.

Education—A total of 20 hours.

Engineering—A total of 10 hours.

Forestry—A total of 3 hours.

Home Economics—All courses.

Horticulture—A total of 6 hours.

Hygiene—Hygiene 102 or 105 (2 hours).

Journalism—A total of 10 hours.

Landscape Architecture—A total of 7 hours.

Law—A student of senior standing with an average of 3.25 who has been in residence either the first two years or the last year of his pre-legal work may take and count toward the A.B. degree not to exceed 32 hours in the College of Law, provided that not less than two courses amounting to at least 5 hours a semester are taken with the advice of the Dean of the College of Law, and provided further that if any such student desires to take more than 6 hours of law work he must also register in the College of Law.

Library Science—A total of 10 hours.

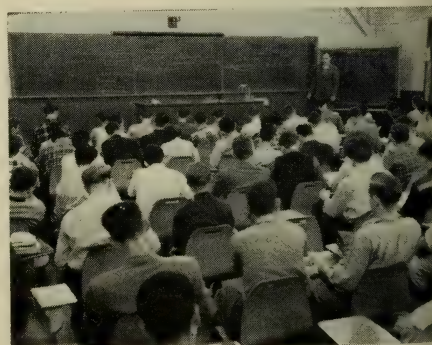
Management and Marketing—A total of 6 hours. Typewriting, secretarial training, and shorthand may not be counted for credit.

Military Training—A total of 8 hours in advanced courses.

Music—A total of 15 hours approved by the Director of the School, unless the student is majoring in music.

Physics—All courses.

Lecture in science



CHEMISTRY AND CHEMICAL ENGINEERING

The minimum language requirement for graduation in the following curricula in chemistry and chemical engineering is the equivalent of two years of college work in German or French. When a student does not offer either German or French for entrance, the second year of the language required for graduation may be counted as an elective in either curriculum.

Students who enter with inadequate preparation in chemistry, mathematics, and foreign languages in high school will find it difficult to complete their professional training in chemical engineering in four years. The optional five-year curriculum is recommended especially for those who do not qualify for Chemistry 107 and Mathematics 117, and who do not have two units of high school credit in French or German. Students should note that they must have a 3.5 general average for registration in these curricula after they have attained junior standing.

CURRICULUM IN CHEMISTRY

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5	Chem. 108—General Chemistry and Qualitative Analysis.....	5
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
German or French.....	4	German or French.....	4
Rhet. 101—Rhetoric and Composition	3	Rhet. 102—Rhetoric and Composition	3
Physical Education	—	Hygiene 102 or 105.....	2
		Physical Education	—
<i>Total</i>	17	<i>Total</i>	18

Second Year

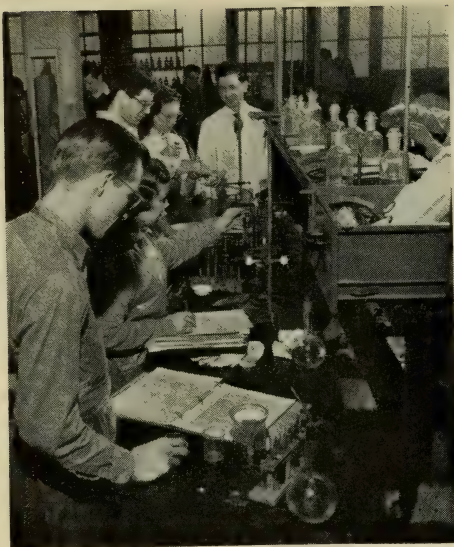
FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 124—Quantitative Analysis	5	Chem. 234—Organic Chemistry ⁴ ..	5
Math. 137—Calculus	3	Math. 147—Calculus	3
Phys. 103—General Physics.....	5	Phys. 104—General Physics.....	5
Physical Education	—	Physical Education	—
Electives ³	3	Electives ³	2-5
<i>Total</i>	16	<i>Total</i>	15-18

¹All students with entrance credit in chemistry are required to take a proficiency examination before registering for Chem. 107. Those who do not show the necessary proficiency will be placed in Chem. 101 or 102, after which they will take Chem. 106 and 110. For students without entrance credit in chemistry, the required sequence is Chem. 101, 106, and 110.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Suggested courses for electives are: Zool. 101, 107, 132; Biology 101, 111, 121, 131, 132; Bot. 100, 101; Engl. 121, 122; Geol. 130, 150; Hist. 151, 152; Bact. 104, 105; German or French. Of the total electives for graduation, at least 12 hours should be from advanced courses in chemistry and at least 10 hours from courses offered by other departments.

⁴Not given at Chicago Undergraduate Division.



Experiments in chemistry

FOUR-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS
Chem. 107—General Chemistry and Qualitative Analysis ¹	5
Math. 117—Freshman Mathematics ²	5
German or French.....	4
Rhet. 101—Rhetoric and Composition	3
Physical Education	
<i>Total</i>	17

SECOND SEMESTER	HOURS
Chem. 108—General Chemistry and Qualitative Analysis.....	5
Math. 127—Freshman Mathematics ²	4
German or French.....	4
Rhet. 102—Rhetoric and Composition	3
Hygiene 102 or 105.....	2
Physical Education	
<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS
Chem. 124—Quantitative Analysis	5
Math. 137—Calculus	3
Phys. 103—General Physics.....	5
G.E.D. 106—Elements of Drawing	3
Physical Education	
<i>Total</i>	16

SECOND SEMESTER	HOURS
Chem. 240—Physical Chemistry ³ ..	3
Chem. 241—Physical Chemistry Lab. ³	1
Math. 147—Calculus	3
Phys. 104—General Physics.....	5
T.A.M. 150—Analytical Mechanics (Statics)	2
Physical Education	4
General Studies Electives ⁴	3
<i>Total</i>	17

¹Students who do not qualify for Chem. 107 automatically go into the five-year curriculum.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

³Not given at Chicago Undergraduate Division.

⁴These electives should be chosen from the Division of Humanities or Social Sciences with the approval of the adviser. The courses are intended to broaden the engineer and provide an interest and liberal education in economics, history, literature, philosophy, political science, or public speaking.

OPTIONAL FIVE-YEAR CURRICULUM IN CHEMICAL ENGINEERING

First Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 101 or 102—General Chemistry ¹	5 or 3	Chem. 106—Inorganic Chemistry. 5	
Math. 117—Freshman Mathematics ²	5	Math. 127—Freshman Mathematics ²	4
Rhet. 101—Rhetoric and Composition	3	German or French.....	4
German or French.....	4	Rhet. 102—Rhetoric and Composition	3
Physical Education		Hygiene 102 or 105.....	2
		Physical Education	
<i>Total</i>	15-17	<i>Total</i>	18

Second Year

FIRST SEMESTER	HOURS	SECOND SEMESTER	HOURS
Chem. 110—Qualitative Analysis. 5		Chem. 124—Quantitative Analysis 5	
Math. 137—Calculus	3	Math. 147—Calculus	3
German or French.....	4	Phys. 104—General Physics.....	5
Phys. 103—General Physics.....	5	German or French.....	4
Physical Education		Physical Education	
<i>Total</i>	17	<i>Total</i>	17

PRE-MEDICAL CURRICULUM

This curriculum, which combines three years of work in the College of Liberal Arts and Sciences with one year of work in the College of Medicine, is available to students under the following conditions:

Any freshman whose scholarship rank is in the upper half of his high school graduating class, on matriculating in the College of Liberal Arts and Sciences, is eligible for admission to the pre-medical curriculum.

Pre-medical students must maintain a 3.5 average during the first two semesters in the curriculum. By the end of the third semester the average for the three semesters must be raised to 3.75 and this average must be maintained. Students who fail to meet these minimum requirements will be transferred to the general curriculum.

A student transferring to this college with advanced standing must meet the scholastic requirements at the level at which he transfers, in terms of the University's grading system, in order to be admitted to the pre-medical curriculum.

¹Students who qualify for Chem. 107 should take the Chem. 107, 108, 122, 240 sequence rather than Chem. 101, 106, 110, 122 and thus have five additional hours of advanced electives.

²For students who do not take Math. 117-127, the required sequence is Math. 112 (or 111), 114 (or 115), 122, 132, and 142.

A student who enters the College of Medicine at the University of Illinois, having met the language requirement and the appropriate group requirements in Group B, pages 51 and 52, may receive the degree of Bachelor of Science from the College of Liberal Arts and Sciences on completion of the first year of medicine. No student may receive credit toward this degree for more than one year of work done in any other college or university.

Other factors being equal, students at the University of Illinois who have completed the pre-medical curriculum with an average of 4.3 or better, will be given preferential consideration by the Committee on Admissions, provided that at least the second and third years have been done within the University.

The specific requirements for admission to the College of Medicine at the University of Illinois are as follows:

	<i>Semester Hours</i>
Chemistry (including, in addition to introductory courses, four hours of organic chemistry, three hours of quantitative analysis, and three hours of physical chemistry—Chem. 101 or 102, 105, 122, 133, and 247).....	16
Physics (including laboratory work in mechanics, heat, sound, light, and electricity—Phys. 101 and 102).....	8
Biology (including general ¹ and vertebrate zoology and general embryology)	10
Rhetoric and Composition (Rhet. 101 and 102).....	6
Modern Language (French, German, or Spanish, etc.).....	6
Social Sciences Electives (including courses from at least two of the following fields: anthropology, economics, history, philosophy, political science, psychology, and sociology).....	14
Electives	28
Total	88

PRE-DENTAL CURRICULUM

Students applying for admission to the pre-dental curriculum must have ranked in the upper half of their high school graduating class. They must maintain at all times in the curriculum a minimum average of 3.5. The work covered by the first two years of the pre-medical curriculum enables students to meet the requirements for admission to the University of Illinois College of Dentistry. Quantitative analysis and physical chemistry are recommended as electives. Since the function of the pre-dental years is to supply a general background for the student as well as specific training in the fundamental concepts of the sciences, it is recommended that the elective hours also include history, economics, sociology, philosophy, and at least one modern language.

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

The specific requirements for admission to the College of Dentistry are as follows:

	<i>Semester Hours</i>
Chemistry (including four hours of organic chemistry—Chem. 101 or 102, 105, and 133).....	12
Physics (Phys. 101 and 102).....	6
Biology (including general zoology ¹).....	6
Rhetoric and Composition (Rhet. 101 and 102).....	6
Electives (including history, economics, sociology, philosophy, and at least one modern language; excluding military, hygiene, and physical education).....	30
Total	60

Pre-dental students who wish to be candidates for the degree of Bachelor of Science in Dentistry on the completion of the second year in the College of Dentistry should consult the College Catalog.

PRE-NURSING CURRICULUM

The University of Illinois offers a program leading to a Bachelor of Science degree in Nursing with the University of Illinois—Cook County School of Nursing and in affiliation with Michael Reese, Presbyterian, and St. Luke's Schools of Nursing. The degree program is in two parts, a two-year pre-professional course and a 30 to 36-month professional program. Following the completion of the 60 semester hours of prescribed college work outlined below, students must enroll for professional education and clinical experience in nursing in one of the affiliated schools of nursing.

Graduate nurses may qualify for the degree provided that (1) they are eligible for admission to the pre-nursing curriculum at the University; (2) they are graduates of the three-year program at one of the affiliated schools of nursing; and (3) they matriculated in one of the affiliated schools of nursing after the date on which it was accredited by the National League of Nursing Education.

Students entering the pre-nursing curriculum must meet the requirements for admission to the general curriculum of the College of Liberal Arts and Sciences, and, in addition, present credit in one year of elementary algebra and one year of plane geometry. Admission to the curriculum is restricted to students 16 to 28 years old. Students 28 to 33 years old may enter subject to approval of the nursing advisory committee. The specific requirements of the pre-nursing curriculum are as follows:

¹The general zoology requirement may be met by Biology 101 and 131, or Biology 101 with a grade of "B."

	<i>Semester Hours</i>
Rhetoric and Composition	6
Social Sciences (including the equivalent of a course in sociology and a course in psychology).....	12
Humanities	6
Chemistry (one year of general and one semester of organic chemistry)	10
Biological Sciences (including a course in bacteriology).....	8
Physics (a course specially designed for nurses or a year of college physics)	4
Electives (one year of foreign language recommended).....	14
Physical Education (four semesters).....	—
Total	60

Special advisers will confer with students enrolling in the pre-nursing curriculum before each student first registers.

PRE-VETERINARY CURRICULUM

The two-year pre-veterinary curriculum in the College of Liberal Arts and Sciences is followed by the four-year curriculum in the College of Veterinary Medicine in Urbana. Students applying for admission to the pre-veterinary curriculum must rank in the upper half of their high school graduating class. Students transferring with advanced standing must have maintained at least a 3.5 average in terms of the University's grading system. Students must maintain at least a 3.5 average to remain in the curriculum.

The specific requirements for admission to the College of Veterinary Medicine at Urbana are as follows:

	<i>Semester Hours</i>
Chemistry (including organic and quantitative analysis—Chem. 101 or 102, 105, 122, and 133).....	16
Biological Sciences ¹ (including botany and general zoology).....	8
Physics (including laboratory—Phys. 101 and 102).....	8
Foreign Language	6
Rhetoric and Composition (Rhet. 101 and 102).....	6
Electives in not less than two of the following fields: economics, fine arts, language, geography, history, literature, philosophy, political science, psychology, sociology, speech. Approximately one-half of these credits should be in social sciences.....	9
Free electives	7
Total	60

The pre-veterinary curriculum is extremely rigid and failure to register in the prescribed courses in the proper sequence may result in additional time.

¹The biological sciences requirement may be met by Biology 101 and 181.

The unseen world — microbiology



PRE-LAW CURRICULUM

The pre-legal courses constitute a highly important phase of the education of students planning the study of law, and this work should be planned with care. Students contemplating the study of law are advised to consult with the Student Counseling Bureau at the Chicago Undergraduate Division relative to their interests and aptitudes for law.

Students taking the curriculum leading toward degrees in both liberal arts and law should comply with the graduation requirements in the general curriculum. Such students are urged to complete all of these requirements before entering the College of Law except the minor and advanced hours.

The prospective law student is advised to choose his work, beyond those subjects prescribed in liberal arts, from among the following fields: English, with special emphasis on rhetoric and speech; political science; history, with emphasis on American and English constitutional history; economics; philosophy, and particularly logic; Latin; psychology; sociology; mathematics; and accountancy.

HOME ECONOMICS

Students planning to major in home economics may profitably attend the Chicago Undergraduate Division for one year. Courses for the freshman program in home economics should be chosen only after consultation with the Dean of the College of Liberal Arts and Sciences.

TEACHER-TRAINING CURRICULA

Of the curricula in teacher-training which have been approved by the College of Liberal Arts and Sciences, preliminary work in twelve curricula is offered at the Chicago Undergraduate Division as follows: biology, chemistry, English, French, geography, German, mathematics, mathematics and physical sciences, physics, social studies, Spanish, speech, and speech correction. In order to meet graduation and state certification requirements, these curricula are relatively rigid and failure to take the prescribed courses of the first two years within that time may result in an additional semester of undergraduate work.

The first two years of the elementary education curriculum, which is designed to meet the requirements for teaching in the elementary and kindergarten-primary grades of Illinois schools, are also administered by this college.

Prospective students in teacher-training curricula should consult with the Office of the Dean of the College of Liberal Arts and Sciences before their first registration. Special advisers are provided at registration.

PRE-JOURNALISM CURRICULUM

Students planning to enter the School of Journalism and Communications are advised to register as pre-journalism freshmen and sophomores following the general curriculum in the College of Liberal Arts and Sciences. Courses in English literature and rhetoric, foreign languages, physical sciences, and social studies are recommended as desirable preparation for the profession of journalism. The ability to use a typewriter should be acquired before entering this school.

For admission to the School of Journalism and Communications as a candidate for a degree, a student must have completed 56 semester hours of work in one of the undergraduate curricula, exclusive of required courses in physical education and military science, with an average grade of 3.5 (one-half of the college work with an average grade of "B" and one-half with an average grade of "C"). An applicant for admission will find it to his advantage to include in his pre-journalism curriculum at least six hours of rhetoric and composition, twelve hours of history, political science, economics, and sociology, and ten hours of science, including mathematics.

The School of Journalism and Communications offers the following curricula: editorial, advertising, publication management, and radio.



Basketball

PHYSICAL EDUCATION

All students entering the University as freshmen are required to obtain four hours of credit in physical education. Each student is given a health examination and a motor fitness test before registration. The findings by the Health Service and the testing division are used as a basis for prescribing each student's immediate physical education program. Students with handicapping physical defects are assigned to special courses such as adapted sports and prescribed activities. Students with low scores in motor fitness are assigned to basic physical fitness courses.

Students who are organically sound and demonstrate a fair degree of motor fitness are permitted to elect from a variety of activity courses. All general courses in physical education meet three times a week for one hour or two times a week for 1½ hours. All general courses in physical education carry one hour of credit.

Women students entering the University as freshmen are required to obtain credit for four semesters of work in physical education; those entering the University with sophomore standing are required to obtain credit for two semesters of work in physical education. Women are offered instruction in elementary, intermediate, and advanced rhythms, individual gymnastics, basketball, volleyball, softball, badminton, tumbling, apparatus stunts, fundamentals of motor fitness, archery, games for school and playground, folk and square dance, boating and fishing, swimming, golf, and bowling. Women's physical education classes are held in the Auditorium at the east end of the Pier. Through the Women's Athletic Association and Orchesis, the modern dance group, women students are offered wide opportunities for extracurricular activities in sports and the dance.

Men students entering the University with less than 56 semester hours credit are required to secure four semesters of credit in physical education, including the amount transferred. In addition to intercollegiate and intramural athletics, men students in the physical education classes are offered instruction in volleyball, badminton, swimming, individual tumbling, double tumbling, apparatus stunts, boxing, wrestling, weight lifting, archery, boating and fishing, personal defense activities, and a basic physical fitness program.

Veteran students who have fulfilled the four-hour physical education requirement while in the service are exempted from taking physical education. Veterans are encouraged to utilize the physical education facilities, but additional credit will not be granted except as elective credit in the College of Commerce.

In addition to the service program, the Physical Education Department offers the first two years of the professional training curricula leading to the degrees of Bachelor of Science in Physical Education, in Health Education, and in Recreation. Complete information concerning the professional training curricula is available at the office of the Director of Physical Education.

ARMY RESERVE OFFICERS' TRAINING CORPS

Authorization

The Reserve Officers' Training Corps (ROTC) is organized under authority of the Act of Congress of June 3, 1916, and was activated at the University of Illinois, Chicago Undergraduate Division, in September, 1950.

Educational Aim

The fundamental educational aim of the ROTC is to make the student conscious of his duties and responsibilities to his government as a citizen of this nation and, to so prepare him, that in time of national emergency he can fulfill his responsibility in accordance with his training and capabilities.

The broad aspect of the military training program gives the student a training which is as valuable to him in his civilian career as it is in his service to his country in time of emergency. The program offers a wide variety of work that is fundamental in nature. It should leave on the mind of the student an indelible impression of the place of the armed forces in the American democracy, and of the extent to which our military organization is dependent on the productive capacity of the nation.

Physical Training

A military unit is largely dependent for its efficiency upon the physical fitness of the individuals composing it. Therefore, it is the policy to encourage and support the physical training given by civilian instructors.

Participation

The ROTC Course is offered to qualified male students on a volunteer basis. Qualifications for enrollment in the ROTC are that the student be:

1. Regularly enrolled in the University.
2. A citizen of the United States.
3. Within specified age limits.
4. Physically qualified.
5. Approved by the Professor of Military Science and Tactics.

Program of Instruction

College level ROTC instruction is divided into two parts: the basic course, which comprises the first two years of the program, and the advanced course, comprising the last two years of the program. Only the first three years of this program are offered at the Chicago Undergraduate Division.

Basic Course

The first two years of military training are designated as the Basic Course. Students in the basic course will devote three hours a week to military instruction which will consist of two hours of class room instruction and one hour of drill. Accreditation for the Basic Course is one hour per semester. A student entering the University of Illinois from a high school or preparatory school which has an accredited Junior Division ROTC program may be granted advance standing in the Basic Course not to exceed one-third of the number of terms or semesters of the Junior Division ROTC successfully completed. A Department of Defense Form No. 68, prepared by the Professor of Military Science and Tactics of the institution previously attended, must be submitted to the Military Science Department prior to registration or must be in the hands of the student concerned at the time of registration. Students intending to enroll in the Basic Course must not have reached the age of twenty-three at the time of enrollment.

Advanced Course

The Advanced Course of the ROTC leads to a Reserve or Regular commission in the Army. The first year of Advanced Course training in Infantry, Artillery, and Engineers is offered to students who have successfully completed the two-year Basic Course or to veterans of the Army, Air Force, Navy and Marine Corps who have completed one year of active service in the Armed Forces and have been honorably discharged.

Students enrolling initially in the Advanced Course must not have reached their twenty-seventh birthday at the time of enrollment. Any student desiring entrance into the Advanced Course must be prepared to complete the course. The objective of the Advanced Course is to produce college-trained junior officers to meet the needs of the Army Reserve, National Guard, and Regular units.

The Advanced Course consists of six hours of instruction per week, four of which will be classroom instruction and two hours of drill. Accreditation for the Advanced Course is three credit hours per semester. All candidates for a Reserve commission must have reached an age of not less than twenty-one years, completed four years of education at college or university level, and successfully completed the Advanced Course which includes a summer encampment. The encampment is of approximately six weeks duration and is usually held at the end of the first year of the Advanced Course. Students completing all requirements for a Reserve commission but who have not reached the age of twenty-one will be given a certificate of capacity and a temporary commission and will receive the Reserve Officer Commission shortly after their twenty-first birthday. Those with distinguished records in ROTC are selected for consideration for Regular commission in the Army.

All members of the Advanced Course will receive the following:

1. Monetary allowance in lieu of subsistence.
2. Officer-type uniform.
3. The pay of the seventh enlisted grade while at the advanced summer encampment.
4. All necessary texts and materials on a loan basis.

Deferment

Deferment from Selective Service is granted for completion of the four-year course to those students who are qualified and approved by a deferment board composed of military and faculty personnel. Deferred students will retain their deferment throughout their course in military, provided they maintain the required standards.

Clothing and Equipment

All students enrolled in the ROTC, including the Basic Course, receive an Army officer-type uniform, text books, notebooks, paper and pencils at Government expense. Equipment and supplies are provided on a loan basis and must be returned at the close of the school year. A deposit of \$10.00 is required prior to the issue of equipment. This deposit, through the Military Property Custodian, is refundable at the close of the school year.

COURSES OF INSTRUCTION

Accountancy

101. **PRINCIPLES OF ACCOUNTING.** Simple transactions, general ledger accounts, books of original entry, closing process, trial balances, financial statements, accounting for negotiable instruments, controlling accounts, adjusting entries. Students who present one unit of bookkeeping for entrance will not be allowed credit for Accountancy 101, and should register in Accountancy 102. I, II; 3. Seniors receive only two hours credit.
102. **PRINCIPLES OF ACCOUNTING.** Similar to Accountancy 101. For those who present one unit of entrance credit in bookkeeping. Students who have failed in Accountancy 101 are permitted to register in Accountancy 102 and receive credit as in Accountancy 101 if their final grade is "C" or above. I, II; 2. Seniors receive only one hour credit.
105. **ACCOUNTING PROCEDURE.** Relation of business documents to the accounts; fundamentals of partnership and corporation accounting; business forms and records; financial statement analysis. I, II; 3. Seniors receive only two hours credit. Prerequisite: Accountancy 101 or 102.
106. **ELEMENTARY COST ACCOUNTING.** Accounting for production management. Principles and methods of accounting for managerial control of costs of production. I, II; 3. Prerequisite: One year of accountancy; sophomore standing; credit or registration in Economics 102 or 108.
108. **INTERMEDIATE ACCOUNTING.** Consideration at the intermediate level of accounts and transactions peculiar to the partnership and corporation types of organization; interpretation of financial statements and analysis of the principal accounts represented therein. I, II; 3. Prerequisite: Credit or registration in Accountancy 106.

Architecture

101. **INTRODUCTION TO ARCHITECTURE.** Introduction to the building industry and the profession of architecture, exercises illustrating basic architectural forms and their organization. Introduction to color. Illustrated lectures and laboratory. I, II; 3.
113. **ARCHITECTURE AND CIVILIZATION OF THE EARLY MEDITERRANEAN AREAS.** An analysis of space and form in Egypt, West Asia, Greece, and Rome. I, II; 2. Prerequisite: Architecture 101 and registration in Architecture 131.
114. **ARCHITECTURE AND CIVILIZATION OF EUROPE AND ISLAM, A.D. 300 TO 1200.** I, II; 2. Prerequisite: Architecture 113.
131. **ARCHITECTURAL DESIGN.** Beginning study of architectural planning and designing. Fundamentals of sketching and presentation. I, II; 3. Prerequisite: Architecture 101 and registration in General Engineering Drawing 108.
132. **ARCHITECTURAL DESIGN.** Continuation of the fundamentals of architectural design. I, II; 3. Prerequisite: Architecture 131, or consent of instructor.
133. **ARCHITECTURAL DESIGN.** Continued study of architectural planning and designing; principles of plan, elevation, and section in small buildings. I, II; 3. Prerequisite: Architecture 132.
134. **ARCHITECTURAL DESIGN.** Continuation of Architecture 133. I, II; 3. Prerequisite: Architecture 133.

141. **MATERIALS AND METHODS OF CONSTRUCTION.** Study of materials and assemblies of materials employed in the construction of buildings classified by Building Codes as Type IV, including single family residences and simple business structures with basements, crawl spaces, or basementless foundations. I, II; 2. Prerequisite: Credit or registration in Architecture 131.
142. **MATERIALS AND METHODS OF CONSTRUCTION.** Non-fire resistance construction; manufacture and performance characteristics of materials; support systems; typical details; finishing materials. Lectures, drawings. I, II; 2. Prerequisite: Architecture 141.
143. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of wood frame construction; manufacture and uses of allied materials; working drawings; detailing. I, II; 3. Prerequisite: Architecture 132.
144. **MATERIALS AND METHODS OF CONSTRUCTION.** Methods of masonry and fireproof construction; manufacture and uses of materials; working drawings; detailing. I, II; 3. Prerequisite: Architecture 143, or consent of instructor.
214. **ARCHITECTURE AND CIVILIZATION OF MEDIEVAL EUROPE AND ISLAM, A.D. 300 TO 1500.** II; 3. Prerequisite: Architecture 113. Architecture 214 must be taken by students in the five-year curriculum in place of Architecture 114.

Art

111. **INTRODUCTION TO ANCIENT AND MEDIEVAL ART.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies previous to the Italian Renaissance. I, II; 3.
112. **INTRODUCTION TO RENAISSANCE AND MODERN ART.** Cultural analysis of the interrelated fields of architecture, sculpture, painting, and other humanistic studies beginning with the Italian Renaissance and continuing through the modern period. I, II; 3.
115. **ART APPRECIATION.** An introduction to the factors inherent in architecture, sculpture, painting, and other arts. Primarily for non-art students. I, II; 3.
181. **FREEHAND DRAWING.** Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2.
182. **FREEHAND DRAWING.** Simple groups of block form, still life, and casts in pencil and charcoal. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 181.
183. **FREEHAND DRAWING.** Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 182.
184. **FREEHAND DRAWING.** Charcoal drawing from the cast; water color. Primarily for students in architecture and landscape architecture. I, II; 2. Prerequisite: Art 183.

Biological Sciences

101. **FUNDAMENTALS OF BIOLOGY.** This course is designed to give a fundamental understanding of plant and animal life and their reproduction. It is not a survey of the plant and animal kingdom, but is rather a scientific examination of the manner and means whereby plants and animals live and reproduce their kind. Lectures, laboratory, and quiz. I, II; 4. Seniors receive only three hours credit.
111. **GENERAL BOTANY.** A survey of the plant kingdom. The morphology and physiology of representative plants from Thallophytes through Angiosperms are considered in building up a system of natural classification based

- upon phylogenetic relationships. The importance of plants in the system of nature and human economics is emphasized. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
115. **INTRODUCTORY SYSTEMATIC BOTANY (PLANT TAXONOMY).** Classification and identification of flowering plants, with special reference to the local flora, and the needs of high school teachers. Occasional field trips required. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101 and 111. Seniors receive only three hours credit.
 116. **ECONOMIC BOTANY.** Lectures and demonstrations of the uses of plants and plant products by man. The origin and distribution of native and cultivated plants and their relation to human history. Forest, drug, food textile, beverage, and other industrial institutions. Lectures and discussions. II; 3. Prerequisite: Biology 101 and 111.
 121. **MICROBIOLOGY.** A study of microorganisms and their role in the system of nature. Among the microorganisms are included the viruses and the microscopic multicellular plants and animals, as well as the protozoa and bacteria. Primary emphasis will be placed upon the bacteria. The systematic evolutionary, physiological, and ecological relationships of these organisms with both plant and animal worlds will be considered. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101.
 126. **ADVANCED GENERAL BACTERIOLOGY.** General technic, special apparatus, and methods. Lectures, laboratory, and quiz. II; 4. Prerequisite: Biology 101 and 121; credit or registration in Chemistry 105. Seniors receive only three hours credit.
 131. **GENERAL ZOOLOGY.** A survey of the animal kingdom, the phylogenetic relationships of animals and classification. Emphasis is placed upon economically important and parasitic forms. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
 132. **COMPARATIVE VERTEBRATE ANATOMY.** Classification and distribution of the vertebrate animals. Comparative anatomy of organs and organ systems, their function and evolution. Lectures, laboratory, and quiz. I, II; 5. Prerequisite: Biology 101 and 131, or Biology 101 with a grade of "B".
 136. **BIRD STUDY.** Native birds; their identification, food relations; seasonal distribution, migration activities, economic importance, and conservation. II; 2.
 141. **VERTEBRATE PHYSIOLOGY.** This course is designed to furnish an understanding of the basic physiological activities of the vertebrate organism. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101. Seniors receive only three hours credit.
 142. **PHYSIOLOGY OF THE NERVOUS SYSTEM.** This course is planned to give an understanding of the physiological activities by which the nervous system carries out its functions. Recommended as background for students of psychology, education, or biological sciences. Lectures, laboratory, and quiz. I, II; 4. Prerequisite: Biology 101 and 141. Seniors receive only three hours credit.
 333. **VERTEBRATE EMBRYOLOGY.** The development of the vertebrate body and its organs. Lectures, laboratory, and quiz. I, II; 5. Prerequisite: Biology 101 and 132; junior standing.

Business Law

100. **BASIC PRINCIPLES OF BUSINESS LAW.** Basic principles in business law, covering the subjects of contracts, sales, negotiable instruments, and agency. Credit toward graduation will not be given for Business Law 201, 202, 261 in addition to Business Law 100. I, II; 3. Prerequisite: Accountancy 105; Economics 102; forty-five credit hours.

Chemistry

101. GENERAL CHEMISTRY. For students who have no entrance credit in high school chemistry. I, II; 5. Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit for Chemistry 101. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
102. GENERAL CHEMISTRY. For all students who have one year of high school chemistry. I, II; 3. Seniors receive only two hours credit. Students who have not used their high school chemistry for entrance may receive five hours credit for Chemistry 102 if they complete the course with a grade of "C" or higher. Prerequisite: One unit of entrance credit in chemistry or equivalent.
103. GENERAL CHEMISTRY. Lectures, recitations, and laboratory. For engineering students who have had no chemistry. I, II; 4. Seniors receive only three hours credit. Students who have received entrance credit for high school chemistry are given only three hours credit in Chemistry 103. Prerequisite: One unit of entrance credit in physics, or $2\frac{1}{2}$ units of entrance credit in mathematics, or credit in Mathematics 111 or 112.
104. CHEMISTRY OF THE METALLIC ELEMENTS. Lectures, recitations, and laboratory. Limited to students in the engineering curricula. I, II; 4. Credit in Chemistry 104 will not be granted to students who have received credit in Chemistry 105 or 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
105. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS. Lectures, recitations, and laboratory. For students who are not eligible for Chemistry 104 or 106. I, II; 5. Credit in Chemistry 105 will not be granted to students who have received credit in Chemistry 104 or 106. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
106. INORGANIC CHEMISTRY. Metallic elements. For students in the chemistry, ceramics, and ceramic engineering curricula and for chemistry majors who are not pre-medical students. I, II; 5. Credit in Chemistry 106 will not be granted to students who have received credit in Chemistry 104 or 105. Seniors receive only three hours credit. Prerequisite: Chemistry 101, 102, or 103.
107. GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS. For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. I; 5. Seniors receive only three hours credit. Prerequisite: Excellent high school background in chemistry as shown by a placement examination.
108. GENERAL CHEMISTRY AND QUALITATIVE ANALYSIS. For students in the curriculum of chemistry or chemical engineering. Lectures, recitations, and laboratory. II; 5. Seniors receive only three hours credit. Prerequisite: Chemistry 107.
110. QUALITATIVE ANALYSIS. Qualitative analysis of metals and inorganic compounds. Open to all students; required of students whose major is chemistry or chemical engineering and those registered in the curriculum of chemistry except students who qualify for Chemistry 107 and 108. I, II; 5. Prerequisite: Chemistry 106.
122. ELEMENTARY QUANTITATIVE ANALYSIS. Gravimetric and volumetric analysis, stoichiometrical relations, practical applications. I, II; 5. Prerequisite: Chemistry 104, 105, or 106.
124. QUANTITATIVE ANALYSIS. For all students in the Chemistry curriculum and Chemical Engineering. I, II; 5. Prerequisite: Chemistry 110 or satisfactory record in Chemistry 107 and 108.

133. **ELEMENTARY ORGANIC CHEMISTRY.** To fulfill the requirements for pre-medical, pre-dental, pre-veterinary, dietetics, and home economics students. Lectures, recitations, and laboratory. I, II; 5. Prerequisite: Chemistry 105 or 110.
196. **GENERAL CHEMISTRY.** Designed to give a cultural background with particular emphasis upon recent developments in several fields of chemistry. Chemistry 196-197 is an approved sequence in general education. Lectures, recitations, and laboratory. I; 4. Prerequisite: Two units of high school mathematics.
197. **GENERAL CHEMISTRY.** Continuation of Chemistry 196. A student with a grade of "C" or better in Chemistry 197 may be admitted to Chemistry 104, 105, or 106. Credit for Chemistry 196, 197 and 104, 105, or 106 shall not exceed ten hours. II; 4. Prerequisite: Chemistry 196.
247. **ELEMENTARY PHYSICAL CHEMISTRY.** For pre-medical students only. Lectures and laboratory. I, II; 4. Prerequisite: Chemistry 122 and 133; Physics 102 or 104, or equivalent.

Civil Engineering

101. **SURVEYING THEORY.** Theoretical aspects of plane and topographic surveying, land surveying; computation of areas and volumes. First three weeks of summer session. S; 3. Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
102. **SURVEYING PRACTICE.** Field practice of plane and topographic surveying. The use of the level, transit and tape in making engineering surveys and topographic maps. Last five weeks of summer term. At summer camp only. S; 4. Prerequisite: Civil Engineering 101, or concurrent registration therein.
103. **ROUTE SURVEYING.** Principles of the economic location of railways and highways; horizontal and vertical alinement for route projects; computations for earthwork quantities and distribution; railway track turnouts. I, II; 3. Prerequisite: Credit in civil engineering summer camp.
115. **GENERAL SURVEYING.** Use and care of surveying instruments; methods of making engineering surveys; computations of areas and volumes; contour problems; transit stadia mapping methods. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; Mathematics 114.
160. **BUILDING CONSTRUCTION.** Materials, types of construction, and details for buildings. I, II; 3. Prerequisite: Sophomore standing.
235. **PLAIN CONCRETE.** Production, properties, specification requirements and uses of Portland cement, aggregates, mixing water, and admixtures; proportioning; field practice in the production of concrete; laboratory practice including tests on materials and concrete of various proportions; calculations and graphs based on values from concrete proportioning projects. I, II; 2. Prerequisite: Sophomore standing in engineering, architecture, or landscape architecture.

Economics

100. **INTRODUCTION TO BUSINESS.** An introductory course on the principles and practices of our economic system from the point of view of the business manager. Open to freshmen only. I, II; 3.
102. **PRINCIPLES OF ECONOMICS.** Principles of production, supply, demand, value, price, distribution. I, II; 3. Prerequisite: One year of university work.
103. **PRINCIPLES OF ECONOMICS.** Principles of economics as applied to exchange, money, banking, price changes, governmental finance, etc. I, II; 3. Prerequisite: Economics 102.

108. **ELEMENTS OF ECONOMICS.** A brief presentation of price determination, international trade and exchange, money and banking, and public finance. For non-commerce students only. Not open to those who have had Economics 102 and 103. I, II; 3. Prerequisite: One year of university work.
136. **ECONOMIC HISTORY OF THE UNITED STATES.** Main events and leading personalities in the economic development of the United States as seen in the westward movement, the growth of industry, agriculture, commerce, finance, transportation, the trust movement, and labor, 1790—Present. I, II; 3.
138. **INTRODUCTION TO THE ECONOMIC HISTORY OF MODERN EUROPE.** The evolution of the economic institutions of modern Europe in relation to the development of industry, commerce, transportation, and finance in the principal European nations. I, II; 3.
170. **ELEMENTS OF STATISTICS.** Methods of collection—presentation and interpretation of quantitative economic data, averages, dispersion, index numbers, reliability of statistics, time series analysis, and simple correlation. I, II; 3. Prerequisite: Economics 102 or 108; sophomore standing.

Education

100. **THE AMERICAN PUBLIC SCHOOL.** Introduction to the study of education. This course is required for all applicants for teaching certificates in Illinois. I, II; 2. Prerequisite: Sophomore standing.
101. **NATURE OF THE TEACHING PROFESSION: AN ORIENTATION COURSE.** This course is designed to help the student get answers to the questions: "What does education in its various branches have to offer?" and "What preparation in general education, subject matter fields, and professional education is required or desirable?" Through an extensive testing and counseling program this course is designed to help the student evaluate his potentialities and problems with reference to becoming a teacher. I, II; 2.
109. **EDUCATIONAL PSYCHOLOGY.** The basic undergraduate course in psychology of education for prospective teachers. Materials and principles from the various areas of psychology (mental hygiene, learning, etc.) are applied to the practical problems of teaching. I, II; 3. Prerequisite: Psychology 100.

Electrical Engineering

114. **WIRING AND ILLUMINATION.** Fundamentals of commercial and industrial illumination and wiring practice. Open to architecture and architectural engineering students only. I, II; 3. Prerequisite: Sophomore standing, or consent of instructor.
120. **ILLUMINATION ENGINEERING AND SECONDARY POWER DISTRIBUTION.** Fundamentals of illumination engineering practice and principles of commercial and industrial wiring. Lighting installation design; theory and design of branches, sub-feeders, and feeders for power and light distribution systems. I, II; 3. Open to non-engineering students. Prerequisite: Sophomore standing or consent of instructor.
126. **ELECTRIC CIRCUITS AND FIELDS.** Study of units and relations in electric and magnetic circuits and fields. Basic concepts of circuit parameters. I, II; 4. Prerequisite: Physics 103; Mathematics 132; credit or registration in Physics 104 and Mathematics 142.

Engineering

100. **ENGINEERING LECTURES.** Selected topics each week. Required of freshmen in the College of Engineering. I; no credit.

English

101. INTRODUCTION TO POETRY. Understanding of poetry through the reading and discussion of representative poems. Credit is not given for English 101, 102, and 103 in addition to English 121 and 122. This course, plus English 102 and 103, satisfies the humanities requirement in general education. Seniors receive only 2 hours credit. I, II; 3.
102. INTRODUCTION TO DRAMA. Understanding of drama through the reading and discussion of representative plays. The reading list will include selections from Greek, Elizabethan, and modern English, continental, and American drama. Credit is not given for English 101, 102, and 103 in addition to English 121 and 122. This course plus English 101 and 103, satisfies the humanities requirement in general education. Seniors receive only 2 hours credit. I, II; 3.
103. INTRODUCTION TO FICTION. Understanding of fiction through the reading and discussion of representative short stories and novels. The reading list will include Jane Austen's *Pride and Prejudice*, Balzac's *Pere Goriot*, Dostoyevsky's *Crime and Punishment*, E. M. Forster's *A Passage to India*, and Hemingway's *A Farewell to Arms*. I, II; 3. Seniors receive only 2 hours credit. See note under English 101.
113. AMERICAN LITERATURE. A survey of American literature with lectures on the historical and cultural background. From 1620 to the Civil War. I, II; 3. Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
114. AMERICAN LITERATURE. A survey of American literature with lectures on the historical and cultural background. From the Civil War to the 20th Century. I, II; 3. Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
121. CHIEF ENGLISH WRITERS BEFORE 1800. *Canterbury Tales*, *Utopia*, three plays of Shakespeare, *Paradise Lost*, *Gulliver's Travels*, *Tom Jones*, *Life of Johnson*, *Rasselas*. Particularly recommended for students in professional and technical courses such as law, medicine, commerce, engineering, etc. Credit is not given for English 121 in addition to English 101, 102, and 103. This course, plus English 122, satisfies the humanities requirement in general education. I, II; 4. Prerequisite: Sophomore standing or exemption from Rhetoric 102.
122. CHIEF ENGLISH WRITERS OF THE NINETEENTH CENTURY. Wordsworth, Byron, Carlyle's *Past and Present*, Arnold's *Prose and Poetry*, Fitzgerald's *The Rubaiyat of Omar Khayyam*, readings from T. H. Huxley, Browning's Poems, and two novels. Particularly recommended for students in professional and technical courses, such as law, medicine, commerce, engineering, etc. Credit is not given for English 122 in addition to English 101, 102, and 103. This course, plus English 121, satisfies the humanities requirement in general education. I, II; 4. Prerequisite: Sophomore standing or exemption from Rhetoric 102.
131. INTRODUCTION TO SHAKESPEARE. I, II; 3. Prerequisite: Sophomore standing, or exemption from Rhetoric 102.
144. CONTEMPORARY POETRY. American poetry from Whitman to Sandburg; and English poetry from the pre-Raphaelites to Masfield. II; 3. Prerequisite: Six hours of English literature, or junior standing.

French

101. ELEMENTARY COURSE. Grammar, pronunciation, reading of modern authors, composition, conversation. For students who have no credit in French. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for French 101 without French 102.

102. **ELEMENTARY COURSE.** Continuation of French 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: French 101, or one year of high school French.
103. **MODERN FRENCH.** Rapid reading of modern authors, syntax, and composition. I, II; 4. Prerequisite: French 102, or two years of high school French.
104. **MODERN FRENCH.** Continuation of French 103. I, II; 4. Prerequisite: French 103, or three years of high school French.
201. **INTRODUCTION TO FRENCH LITERATURE.** I; 3. Prerequisite: French 104, or four years of high school French.
202. **INTRODUCTION TO FRENCH LITERATURE.** II; 3. Prerequisite: French 104, or four years of high school French.

General Engineering Drawing

101. **ELEMENTS OF DRAWING.** Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings. I, II; 4. Seniors receive only three hours credit. Prerequisite: Plane geometry.
102. **DESCRIPTIVE GEOMETRY.** Theory of projections; solution of theoretical and practical problems involving size, shape, and relative position of common geometrical magnitudes such as points, lines, planes, curved surfaces, and solids; intersections, developments, shades and shadows, perspective drawing. I, II; 4. Prerequisite: Plane and solid geometry; General Engineering Drawing 101.
103. **AIRCRAFT DRAFTING AND LOFTING.** Aircraft terminology, control and reference surfaces and systems; sheet metal terminology and fabrication; drafting standards and types of drawings; drafting room manuals and standard handbooks; descriptive geometry applied to simple layouts and details; aircraft fastenings; lofting—plane, tapered, and double cornered surfaces, airfoils, intersections; practices and standards incidental to the foregoing considerations. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104, and 102.
104. **ADVANCED DRAWING.** Review of orthographic projection and working drawings; isometric, oblique, perspective, chart and diagram, topographical, architectural, and structural drawing. I, II; 4. Prerequisite: General Engineering Drawing 101, or substantial equivalent.
106. **ELEMENTS OF DRAWING.** Lettering; orthographic projection; working drawings; chart and diagram drawing; isometric and oblique drawing; freehand sketching; tracings; methods of reproducing drawings, piping and perspective drawing, and structural drawing. For students in chemical engineering. I, II; 3. Prerequisite: Plane geometry.
107. **ARCHITECTURAL PROJECTIONS.** Instrumentation; lettering; projection; intersections; conventions; shades and shadows; oblique, isometric, and perspective drawing. I, II; 2. Prerequisite: Plane geometry.
108. **ARCHITECTURAL PROJECTIONS (CONTINUED).** Shades and shadows; oblique, isometric, and perspective drawing; developments. I, II; 2. Prerequisite: General Engineering Drawing 107.
210. **INDUSTRIAL PRODUCTION ILLUSTRATION.** Mechanical and free-hand drawings of axonometric, oblique and perspective; shades and shadows; rendering of drawings with various media including some work with the airbrush; industrial production illustration. An approved elective in all engineering curricula. I, II; 3. Prerequisite: General Engineering Drawing 102, or 107 and 108.
212. **GRAPHICAL CALCULATIONS.** Construction and uses of nomographs, coordinate papers (principally logarithmic and semi-logarithmic), various

types of slide rules, and mechanical calculating devices; other methods of engineering calculations. For students in engineering; accepted as an approved elective in all curricula of the College of Engineering. I, II; 1. Prerequisite: General Engineering Drawing 101 or equivalent; Mathematics 122.

Geography

101. **ELEMENTS OF GEOGRAPHY.** The geographic point of view; elements of physical landscape; planetary relations, weather, climate, climatic regions, landforms, natural resources. Lectures, discussions, and quiz. I, II; 5. Seniors or those with credit in Geography 104 receive only four hours credit.
104. **WORLD REGIONAL GEOGRAPHY.** Survey of the geographic structure of the world; regional patterns of settlement and land utilization; man's occupancy of the world. I, II; 3. Seniors receive only 2 hours credit. Prerequisite: Geography 101.
106. **GENERAL GEOGRAPHY.** A brief survey of the physical environment followed by a more detailed treatment of earth resources and of the causes and consequences of man's chief productive activities from a geographic point of view. For commerce students only. Not open to students who have credit in Geography 101, 103, 104, or 105. I, II; 5. Seniors receive only four hours credit.
111. **INTRODUCTORY METEOROLOGY.** The atmosphere; its composition, functions, and behavior in the production of various weather types; air masses; application to present-day activities. Lectures and quiz. I, II; 3. Prerequisite: Geography 101, or consent of instructor.
123. **GEOGRAPHY OF ILLINOIS.** Detailed regional study of the state with special emphasis on the cultural relations of Illinois to the rest of the nation. II; 3. Prerequisite: Geography 101, or 104, or 106, or consent of instructor.

Geology

101. **PHYSICAL GEOLOGY.** Materials, structures, surface features of the earth and processes which have produced them. Lectures, quiz, and laboratory. One-half day field trip required. I, II; 4. Geology 101 and 102 meet the general education requirement in the physical sciences. Seniors receive only three hours credit.
102. **HISTORICAL GEOLOGY.** Evolution of the earth and its life. Lectures and laboratory. I, II; 4. Seniors receive only three hours credit. Prerequisite: Geology 101, or Division of General Studies 141.
131. **MINERALOGY.** A systematic study of minerals and common rocks. Lecture and laboratory. I; 3. Prerequisite: One semester of college chemistry.
132. **MINERALOGY.** Continuation of Geology 131. A systematic study of minerals and common rocks. Lecture and laboratory. II; 3. Prerequisite: Geology 131.
150. **GEOLOGY FOR ENGINEERS.** I, II; 3. Prerequisite: Sophomore standing in the College of Engineering.

German

101. **ELEMENTARY COURSE.** Oral practice, reading, and grammar for beginners. Not open to students who have had high school credit in this language. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for German 101 without German 102.
102. **ELEMENTARY COURSE.** Continuation of German 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: German 101, or one year of high school German.

103. INTERMEDIATE COURSE. Modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 102, or two years of high school German, or equivalent.
104. INTERMEDIATE COURSE. Continuation of German 103. Literary reading. Classical and modern narrative prose. Oral practice and sight reading. I, II; 4. Prerequisite: German 103, or three years of high school German, or equivalent.
210. MASTERPIECES OF GERMAN LITERATURE. Introduction to German literature, its subjects, forms, and ideals. I, II; 3. Prerequisite: German 104, 144, two years of college German, or equivalent.

History

111. MODERN EUROPEAN HISTORY FROM THE RENAISSANCE TO 1815. Europe from the age of the great discoveries to the close of the Napoleonic wars. I; 4. Seniors receive only three hours credit.
112. MODERN EUROPEAN HISTORY, 1815 TO THE PRESENT. Development of European nationalism, liberalism, and imperialism; World War; reconstruction. II; 4. Seniors receive only three hours credit.
131. HISTORY OF ENGLAND TO 1688. History of the British peoples to 1688. I; 3. Seniors receive only two hours credit.
132. HISTORY OF ENGLAND, 1688 TO 1951. Modern history of the United Kingdom; colonial and imperial development. II; 3. Seniors receive only two hours credit.
151. HISTORY OF THE UNITED STATES TO 1865. Colonial foundations, the movement for independence, early years of the Republic. I; 3. Prerequisite: Sophomore standing.
152. HISTORY OF THE UNITED STATES, 1865 TO 1951. A century of national life and organization. II; 3. Prerequisite: Sophomore standing.
181. THE ANCIENT WORLD. Ancient empires and Greece. I; 3. Prerequisite: Sophomore standing.
182. THE ANCIENT WORLD. Rome. II; 3. Prerequisite: Sophomore standing.

Hygiene

102. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate women during their first year of residence. I, II; 2. Seniors receive only one hour credit.
105. PERSONAL AND ENVIRONMENTAL HYGIENE. Required of all undergraduate men during their first year of residence. I, II; 2. Seniors receive only one hour credit.

Management

101. INDUSTRIAL ORGANIZATION AND MANAGEMENT. Organization plans, administrative policies, and management problems with special attention to manufacturing units. I, II; 3. Prerequisite: Economics 102, or consent of Associate Dean of the college.

Marketing

101. PRINCIPLES OF MARKETING. The functions, commodities, and middlemen involved in the marketing of goods and services; the policies and problems involved in the operation of market institutions. I, II; 3. Prerequisite: Economics 102 and 103 or consent of Associate Dean of the college.

Mathematics

101. BASIC MATHEMATICS. A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. Re-

quired of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include algebra and plane geometry. II; 3.

102. **BASIC MATHEMATICS.** A systematic presentation of the fundamentals of arithmetic, algebra, plane geometry, trigonometry, and statistics. Required of students in the general curriculum of the College of Liberal Arts and Sciences whose entrance credits do not include algebra and plane geometry. I; 3. Prerequisite: Mathematics 101.
103. **INTRODUCTION TO COLLEGE ALGEBRA.** I, II; 3. Students having $1\frac{1}{2}$ entrance units in algebra receive no credit. Seniors receive no credit.
104. **ELEMENTS OF ALGEBRA AND TRIGONOMETRY.** For premedical students who have entered with only one unit of high school algebra and who need credit in trigonometry as a prerequisite to physics. This course does not serve as a prerequisite for Mathematics 122. Premedical students who enter with $1\frac{1}{2}$ units of algebra must take Mathematics 114. I, II; 3. Prerequisite: High school algebra, 1 unit; plane geometry, 1 unit.
106. **SOLID GEOMETRY.** Satisfies deficiency in solid geometry for engineering students; all other students receive full credit. I, II; 3. Prerequisite: Entrance algebra, 1 unit; plane geometry, 1 unit.
108. **ELEMENTARY PLANE GEOMETRY FOR VETERANS.** This course deals with the usual topics of high school geometry. It is designed as a refresher course for veterans who are deficient in this area of basic mathematics. Students may meet entrance requirements for the Colleges of Commerce or Engineering through this course. I, II; no credit.
109. **FUNDAMENTALS OF MATHEMATICS.** For students who do not specialize in mathematics. A survey of the character of mathematics as a subject and of its relations to science, art, philosophy, and knowledge in general. I, II; 4. Prerequisite: Consent of the department.
112. **COLLEGE ALGEBRA.** I, II; 3. Seniors receive only two hours credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
114. **PLANE TRIGONOMETRY.** I, II; 2. Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units, or Mathematics 103; plane geometry, 1 unit, or Mathematics 108.
115. **ADVANCED TRIGONOMETRY.** Intended for students having entrance credit in trigonometry. The course will include such topics as trigonometric equations, De Moivre's theorem, complex numbers with applications to more complicated problems in plane trigonometry, and a brief introduction to spherical trigonometry. I, II; 2. Seniors receive only one hour credit. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit; solid geometry, $\frac{1}{2}$ unit; Mathematics 114, or entrance trigonometry, $\frac{1}{2}$ unit.
117. **COMBINED FRESHMAN MATHEMATICS.** A combined course integrating all the usual topics of algebra, trigonometry, and analytic geometry, and also some topics of differential calculus. For students of chemistry, chemical engineering, ceramic engineering, ceramics, and architecture. I; 5. Prerequisite: Entrance algebra, $1\frac{1}{2}$ units; plane geometry, 1 unit.
122. **ANALYTIC GEOMETRY.** Plane and solid analytic geometry. I, II; 4. Seniors receive only three hours credit. Prerequisite: Mathematics 111 or 112 and 114 or 115.
123. **ANALYTIC GEOMETRY.** Plane and solid analytic geometry. I, II; 5. Seniors receive only 4 hours credit. Prerequisite: Mathematics 111 or 112, 114 or 115.
127. **COMBINED FRESHMAN MATHEMATICS.** Continuation of Mathematics 117. I, II; 4. Prerequisite: Mathematics 117.
132. **CALCULUS.** First course for students of mathematics and engineering. I, II; 5. Prerequisite: Mathematics 122.

137. **CALCULUS.** For students of chemistry, chemical engineering, ceramics, ceramic engineering, and architecture. I; 3. Prerequisite: Mathematics 117 and 127, or consent of department.
142. **CALCULUS.** Second course for students of mathematics and engineering. I, II; 3. Prerequisite: Mathematics 132.
147. **CALCULUS.** Continuation of Mathematics 137. II; 3. Prerequisite: Mathematics 137.
161. **STATISTICS.** II; 3. Prerequisite: Mathematics 111 or 112; sophomore standing.
341. **DIFFERENTIAL EQUATIONS.** II; 3. Prerequisite: Mathematics 132 and 142, or 137 and 147.

Mechanical Engineering

171. **MECHANISM.** A study of the transmission and modification of motion by linkwork, cams, gears, belts, ropes, chains, etc.; theory of gear tooth action; gear tooth systems and production methods; point paths, displacement diagrams. I, II; 2. Prerequisite: General Engineering Drawing 101; registration in Physics 103.
182. **MANUFACTURING PROCESSES.** Foundry practice; pattern design; hot and cold forming. Welding and allied processes; machine tools and machining practice; use of jigs, fixtures, and tools for manufacture of interchangeable parts. Classroom discussion and demonstrations. I, II; 3. Prerequisite: Sophomore standing in aeronautical engineering, or consent of instructor.
183. **MATERIALS CASTING.** Casting as a process of fabrication; the molding process including machine molding; molding sand characteristics, control, and testing. Melting and pouring practice. Physical characteristics of cast materials, advantages, and disadvantages; gray iron structures and elementary metallurgical concepts; design of wood and metal patterns and correlation with foundry practice; core requirements control and testing. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.
184. **METAL PROCESSING.** Basic machining processes used for metal processing. Use of machine tools, jigs, fixtures, gages, and measuring instruments and inspection methods to produce interchangeable metal parts. I, II; 3. Prerequisite: General Engineering Drawing 101 or 104; sophomore standing.

Military Science and Tactics

101. **FRESHMAN DRILL AND THEORY.** Basic military instruction to include military policy; military organization; evolution of warfare; maps; and leadership, drill and command. I; 1. Prerequisite: Military Science Department approval.
102. **FRESHMAN DRILL AND THEORY.** Basic military instruction to include military psychology and personnel management, geographical foundations of national power, military problems of the United States; and leadership, drill and command. II; 1. Prerequisite: Military Science 101 or equivalent.
103. **INFANTRY SOPHOMORE DRILL AND THEORY.** Basic infantry instruction to include leadership, drill, and exercise of command, organization of infantry units, weapons, marksmanship, technique of fire of rifle squad, combat formations, scouting and patrolling, tactics of rifle squad. I; 1. Prerequisite: Military Science 102 or equivalent.
104. **INFANTRY SOPHOMORE DRILL AND THEORY.** Continuation of Military Science 103. II; 1. Prerequisite: Military Science 103 or equivalent.
133. **ENGINEER SOPHOMORE DRILL AND THEORY.** History and traditions of the Corps of Engineers, characteristics of weapons, camouflage, ex-

- plosives and demolitions, hand tools, mines, tactics and field fortifications. I; 1. Prerequisite: Military Science 102 or equivalent.
134. **ENGINEER SOPHOMORE DRILL AND THEORY.** Continuation of Military Science 133. II; 1. Prerequisite: Military Science 133.
163. **ARTILLERY (ANTIAIRCRAFT) SOPHOMORE DRILL AND THEORY.** Introduction, characteristics, and service of the piece of AAA automatic weapons and 90-mm AAA guns. I; 1. Prerequisite: Military Science 102 or equivalent.
164. **ARTILLERY (ANTIAIRCRAFT) SOPHOMORE DRILL AND THEORY.** Continuation of Military Science 163. II; 1. Prerequisite: Military Science 163.
235. **CORPS OF ENGINEERS JUNIOR DRILL AND THEORY.** Advanced instruction in Corps of Engineers to include bridge design and classification, engineer signal communications, engineer combat intelligence, engineer supply, military roads and runways, organization of engineer units, organization of combat divisions, tactics of engineer units, vehicle operations and maintenance, water supply and individual weapons and marksmanship. I; 3. Prerequisite: Military Science 134 or equivalent. Open to students pursuing any engineering curricula or applied course such as geology, chemistry, physics, etc.
236. **CORPS OF ENGINEERS JUNIOR DRILL AND THEORY.** Continuation of Military Science 235. II; 3. Prerequisite: Military Science 235.
265. **ARTILLERY (ANTIAIRCRAFT) JUNIOR DRILL AND THEORY.** Advanced antiaircraft artillery instruction to include AAA tactics, basic gunnery for AAA and automatic weapons, communications, individual weapons and marksmanship, motors and transportation, organization and troop movements. I; 3. Prerequisite: Military Science 164 or equivalent.
266. **ARTILLERY (ANTIAIRCRAFT) JUNIOR DRILL AND THEORY.** Continuation of Military Science 265. II; 3. Prerequisite: Military Science 265.

Philosophy

101. **INTRODUCTION TO PHILOSOPHY.** Discussion of problems in the field of morals, art, and knowledge, with selected readings from philosophers whose views have been influential in Western culture. I, II; 3. Prerequisite: Sophomore standing.
102. **LOGIC.** Reasoning, detection of fallacies, evidence. I, II; 3. Prerequisite: Sophomore standing.
105. **MORAL IDEAS AND PRACTICE.** I, II; 2. Prerequisite: Sophomore standing. Credit is not given for both Philosophy 103 and 105.

Physical Education for Men

101. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.
102. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 1.
103. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 2.
104. **PRESCRIBED EXERCISE.** Prescribed ameliorative exercises adapted to individual needs, capacities, and interests. I, II; 2.
106. **DEVELOPMENTAL ACTIVITIES.** Activities that contribute to the development and maintenance of physical fitness according to social and hygienic standards. I, II; 1.
108. **BEGINNING SWIMMING.** Skills, knowledge, attitudes, and conditions. S; 1. Open to non-swimmers.

112. INDIVIDUAL TUMBLING STUNTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
113. DOUBLE TUMBLING STUNTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
114. APPARATUS STUNTS. Skills, knowledge, attitudes, and conditions I, II; 1.
117. BOXING. Skills, knowledge, attitudes, and conditions. I, II; 1.
118. WRESTLING. Skills, knowledge, attitudes, and conditions. I, II; 1.
119. FOIL FENCING. Skills, knowledge, attitudes, and conditions. I, II; 1.
120. PERSONAL DEFENSE ACTIVITIES. Skills, knowledge, attitudes, and conditions. I, II; 1.
123. WEIGHT LIFTING. Skills, knowledge, attitudes, and conditions. I, II; 1.
129. VOLLEYBALL. Skills, knowledge, attitudes, and conditions. I, II; 1.
132. ARCHERY. Skills, knowledge, attitudes, and conditions. I, II; 1.
136. BADMINTON. Skills, knowledge, attitudes, and conditions. I, II; 1.
139. BACKYARD SPORTS. Skills, knowledge, attitudes, and conditions. I, II; 1.
140. BOATING AND FISHING. I, II; 1. Prerequisite: Two hours of credit in physical education and a score on the physical fitness test that allows the student a free choice of activities, or approval of the Director of Physical Education.
143. AMERICAN SQUARE DANCE. I, II; 1.
150. PROFESSIONAL ORIENTATION. Introduction to the fields of physical education, athletics, health, safety, recreation. For physical education majors. I, II; 2.
159. CAMP COUNSELING. Objectives, administration, counseling, activity programs, evaluation. I, II; 3.

Physical Education for Women

100. FUNDAMENTALS OF MOTOR FITNESS. I, II; 1.
101. INDIVIDUAL GYMNASTICS. Recommendation from the Department of Health Service is necessary for registration in this course. I, II; 1.
102. MODIFIED ACTIVITIES. Prescribed recreational sports, relaxation, and exercise. Prerequisite: Recommendation from the Department of Health Service. I, II; 1.
105. ELEMENTARY RHYTHMS. I, II; 1.
106. INTERMEDIATE RHYTHMS. I, II; 1. Prerequisite: P.E.W. 105, or consent of instructor.
107. ADVANCED RHYTHMS. An opportunity for those who have completed previous work to further their skills in muscular control and extend their creative interests and appreciations of art through the medium of the dance. I, II; 1. Prerequisite: P.E.W. 105 and 106, or consent of instructor.
110. ELEMENTARY SWIMMING. S; 1.
123. BASKETBALL. I, II; 1.
124. VOLLEYBALL. I, II; 1.
125. SOFTBALL. I, II; 1.
130. BADMINTON. I, II; 1.
131. GOLF. Personal equipment to be furnished by student. I, II; 1.
132. BOWLING. S; 1.
135. ARCHERY. I, II; 1.
140. BOATING AND FISHING. Open to students who have completed two semesters of physical education. I, II; 1.
141. TUMBLING AND APPARATUS STUNTS. The side horse, parallel bars, stall bars, buck, etc. are used to develop skills in balance and coordination on apparatus. Attention is directed toward safety factors necessary in utilizing this equipment. Forward rolls, backward rolls, group and individual stunts are used. I, II; 1.

143. AMERICAN SQUARE DANCE. I, II; 1.
144. ELEMENTARY FOLK DANCE. I, II; 1.
155. PHYSICAL EDUCATION PRACTICE. Basketball, softball, rhythms. II; 2.
200. GAMES FOR SCHOOL AND PLAYGROUND. Prerequisite: For students majoring in physical education. I, II; 2.

Physics

101. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and in architecture. I, II; 5. Prerequisite: Mathematics 114 or 117.
102. GENERAL PHYSICS (LIGHT, ELECTRICITY, AND MAGNETISM). Lectures with demonstrations, recitations, and laboratory. For students in arts and sciences, and in architecture. I, II; 5. Prerequisite: Physics 101.
103. GENERAL PHYSICS (MECHANICS, SOUND, AND HEAT). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I, II; 5. Prerequisite: Mathematics 132 or 137, or concurrent registration in these courses.
104. GENERAL PHYSICS (ELECTRICITY, MAGNETISM, LIGHT, AND MODERN PHYSICS). Lectures with demonstrations, recitations, and laboratory. For students in engineering, mathematics, physics, and chemistry. I, II; 5. Prerequisite: Physics 103.
105. NURSES' PHYSICS. Primarily for students in nursing education. Those basic principles of physics that are pertinent to the training and routine of nurses in both institutional and private service. A lecture and problem course with emphasis on selected recent developments in nuclear physics and radioactive tracers. Lecture-demonstrations once each week. I, II; 4. Prerequisite: Sophomore standing or consent of instructor.

Political Science

103. INTRODUCTION TO POLITICAL SCIENCE. A course designed to acquaint the student with basic concepts of political science. Topics to be covered will include the following: scope and method of political science; constitutions and forms of government; nature and problems of democracy; the making, control, and execution of public policy. I; 3.
104. INTRODUCTION TO INTERNATIONAL POLITICS. This is designed as a survey of the type initiated in Political Science 103. Topics to be covered will include the following: the development of the world system of states; the international political and economic struggle for power, the determination and conduct of foreign policy; problems involved in maintaining peace; and organizations devoted to its maintenance. II; 3.
150. AMERICAN GOVERNMENT: ORGANIZATION AND POWERS. Historical development and organization of national, state, and local governments; the federal system; national and state constitutions; civil and political rights; party system; nature, structure, powers, and procedure of legislative, executive, and judicial departments in state and nation. I, II; 3. Prerequisite: Sophomore standing.
151. AMERICAN GOVERNMENT: FUNCTIONS. Functions of national, state, and local governments; foreign relations and national defense; taxation and finance; law enforcement; police power; regulation of commerce, communications, and business; promotion of social and economic welfare; current problems. I, II; 3. Students may not receive credit for both Political Science 151 and 101 and 102. Prerequisite: Sophomore standing; Political Science 150, or consent of the department.

Psychology

100. **INTRODUCTION TO PSYCHOLOGY.** Introductory analysis and description of human behavior with special reference to observation, learning, memory, thinking, emotional life, and personality development. Major emphasis is placed upon psychological principles as they relate to daily life and everyday problems. I, II; 4. Prerequisite: Sophomore standing.
125. **AN INTRODUCTION TO THE FIELDS OF PSYCHOLOGY.** An introduction to the basic fields of psychology including the history of psychology, developmental psychology with an emphasis on the socialization of the child, individual differences, industrial, social, abnormal, and physiological psychology. I; 4. Prerequisite: Psychology 100, or its equivalent, or junior standing. Students taking this course may not take Psychology 220 at the Urbana campus for credit.
145. **INDUSTRIAL PSYCHOLOGY.** A consideration of socio-psychological principles of behavior in business and industry and of the scientific methods of investigation in this area, and a survey of specific methods of personnel technology. I, II; 3. Prerequisite: Psychology 100.
150. **PERSONALITY AND SOCIAL BEHAVIOR.** An introduction to the study of personality in relationship to the social environment. Application of psychological principles to social problems. I, II; 3. Prerequisite: Psychology 100, or equivalent.

Rhetoric

100. **FRESHMAN REMEDIAL RHETORIC AND COMPOSITION.** Open to students who fail the placement test for admission to Rhetoric 101. Intensive review of fundamentals, with considerable practice in composition. Students passing this course will be admitted to Rhetoric 101 without further examination. I, II; no credit.
101. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. I, II; 3. Seniors receive only two hours credit. Prerequisite: A passing grade on the Rhetoric 101 placement examination or a passing grade in Rhetoric 100.
102. **FRESHMAN RHETORIC AND COMPOSITION.** This course provides elementary training and practice in the comprehension and expression of written and oral English. I, II; 3. Seniors receive only two hours credit. Prerequisite: Rhetoric 101.
133. **EXPOSITORY WRITING.** I, II; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.
144. **NARRATIVE WRITING.** Elements and practice of narrative writing. Not a course in short-story writing. I, II; 3. Prerequisite: Rhetoric 101 and 102; sophomore standing.
151. **BUSINESS LETTER WRITING.** I, II; 3. Prerequisite: Rhetoric 101 and 102. This course is not counted toward a major in English.

Social Sciences

111. **THE INDIVIDUAL IN SOCIETY.** A general education course designed to equip the beginning student with an understanding of the nature and the role of the individual as a member of the several groupings of his social community. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in a course in anthropology, psychology, or sociology. Juniors and seniors receive only three hours credit.
112. **BASES OF AMERICAN LIFE.** A general education course designed to acquaint the student with the physical, economic, political, and social developments of the United States and to equip him for intelligent active participation in local and national life. I, II; 4. Credit is not given for this

course to a student with credit, or concurrent registrations, in Political Science 150 or 151 or History 151 or 152. Juniors and seniors receive only 3 hours credit.

113. **WORLD PATTERNS AND WORLD PROBLEMS.** A general education course designed to bring the student to an understanding of the geographic, economic, and political bases of the present world situation. I, II; 4. Credit is not given for this course to a student with credit, or concurrent registration, in Geography 103. Juniors and seniors receive only 3 hours credit.
114. **THE UNITY OF KNOWLEDGE.** A general education course designed to acquaint the student with the development of philosophical and scientific disciplines in intellectual history, and to equip him to direct his further general education by his awareness of the integrative factors in current education and culture. I, II; 4. Prerequisite: Sophomore standing and a 3.5 average.
116. **FAMILY LIVING.** The development of the family from early to modern times. The factors involved in the establishment and maintenance of a family. Opportunities for individual counseling. I, II; 4. Prerequisite: Sophomore standing or consent of instructor.

Sociology and Anthropology

Sociology

100. **PRINCIPLES OF SOCIOLOGY.** Concerned with the scientific study of human societies. I, II; 3. Prerequisite: Sophomore standing.
130. **SOCIETY AND INDIVIDUAL DEVELOPMENT.** Nature of person and relation to institutions, social order, and development. I, II; 3. Prerequisite: Sociology 100.
140. **SOCIAL CONTROL.** Sociological principles, institutional and other means and techniques of social control. I, II; 2. Prerequisite: Sociology 100.

Anthropology

107. **INTRODUCTION TO ANTHROPOLOGY.** An introduction to general anthropology covering human origins and early man; race and racism, archaeology and the beginnings of human civilization, linguistics, and the nature of culture with examples from primitive societies. I, II; 3. Prerequisite: Sophomore standing.

Spanish

101. **ELEMENTARY SPANISH.** For students who have no credit in Spanish. I, II; 4. Seniors receive only three hours credit. No credit toward graduation is given for Spanish 101 without 102.
102. **ELEMENTARY SPANISH.** Continuation of Spanish 101. I, II; 4. Seniors receive only three hours credit. Prerequisite: Spanish 101, or one year of high school Spanish.
103. **INTERMEDIATE SPANISH.** Rapid reading, review of grammar, composition, conversation. I, II; 4. Prerequisite: Spanish 102, or two years of high school Spanish.
104. **INTERMEDIATE SPANISH.** Continuation of Spanish 103. I, II; 4. Prerequisite: Spanish 103, or three years of high school Spanish.
113. **ELEMENTARY COMPOSITION AND CONVERSATION.** Conducted largely in Spanish. May be taken concurrently with Spanish 103. Does not count toward the major in Spanish. I, II; 2. Prerequisite: Spanish 102, or two years of high school Spanish.
201. **INTRODUCTION TO SPANISH LITERATURE.** Reading of modern authors of Spain and Latin America. I; 3. Prerequisite: Spanish 104, or four years of high school Spanish.
202. **INTRODUCTION TO SPANISH LITERATURE.** Reading of modern authors of Spain and Latin America. II; 3. Prerequisite: Spanish 201.

Speech

- 101. **PRINCIPLES OF EFFECTIVE SPEAKING.** Preparation and presentation of short informative and persuasive speeches, with emphasis on the selection and organization of material, methods of securing interest and attention, and the elements of delivery. I, II; 3. Seniors receive only two hours credit. Prerequisite: A passing grade in Rhetoric 101 placement examination or a passing grade in Rhetoric 100.
- 105. **VOICE AND ARTICULATION.** A drill course for the improvement of the normal speaking voice. II; 2. Seniors receive only one hour credit.
- 107. **PARLIAMENTARY PROCEDURE.** Principles and practice of parliamentary procedure. I, II; 2. Seniors receive only one hour credit.
- 111. **BUSINESS AND PROFESSIONAL SPEAKING.** Study, preparation, and presentation of the chief types of business speeches, with special attention to conference, sales talks, interviews, job applications. I, II; 2. Prerequisite: Speech 101; sophomore standing.
- 117. **ARGUMENTATION.** Methods of logical analysis; the kinds and forms of argument; the adaptation of argumentative materials to audience situations; and the forms of debate. Practice debates on current subjects. I, II; 3. Prerequisite: Speech 101; sophomore standing.
- 141. **ORAL INTERPRETATION OF LITERATURE.** Principles of interpretation, analysis, and oral reading of prose literature and verse. I, II; 2. Seniors receive only one hour credit.
- 161. **FUNDAMENTALS OF ACTING.** A study of the methods of acting, with emphasis given to basic stage techniques. The role of the character in relation to the play as a whole; the intellectual and emotional values of the play and their interpretation by means of voice and action. I, II; 3. Prerequisite: Speech 141.

Theoretical and Applied Mechanics

- 150. **ANALYTICAL MECHANICS (STATICS).** Resultants of force systems, algebraic and graphical condition of equilibrium of force systems. Analysis of forces acting on members of trusses, frames, etc. Forces due to friction. Centroids. I, II; 2. Prerequisite: Registration in Mathematics 142.
- 154. **ANALYTICAL MECHANICS (STATICS AND DYNAMICS).** A combination of Theoretical and Applied Mechanics 150 and 211 with less emphasis on some topics. For electrical engineering students only. I, II; 4. Prerequisite: Registration in Mathematics 142.
- 156. **ANALYTICAL MECHANICS (STATICS AND DYNAMICS).** A combination of Theoretical and Applied Mechanics 150 and 211. I, II; 5. Prerequisite: Registration in Mathematics 142.
- 171. **ELEMENTS OF MECHANICS (STATICS).** Resultants and equilibrium of force systems; conditions of equilibrium applied to trusses, frames, etc.; forces due to friction; centroids; stress and deformation in direct tension and compression; riveted and welded joints; properties of materials. For architects only. I, II; 3. Prerequisite: Mathematics 122.
- 172. **STRENGTH OF MATERIALS.** Relationships between external forces acting on beams and the stresses produced; shear, moment, slope, and deflection diagrams; moment of inertia; columns. For architects only. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 171.
- 211. **ANALYTICAL MECHANICS (DYNAMICS).** Displacement, velocity and acceleration of a particle; relation between forces acting on rigid bodies and the changes in motion produced; translation; rotation; plane motion; solutions using the principles of force, mass, and acceleration, work and energy, and impulse and momentum. I, II; 3. Prerequisite: Theoretical and Applied Mechanics 150.

CALENDAR

Chicago Undergraduate Division

1951 — FIRST SEMESTER

Sept. 5, Wed.—Sept. 12, Wed.Orientation Period
Sept. 13, Thurs.—Sept. 15, Sat.Registration
Sept. 17, Mon.Instruction Begins
Nov. 20, Tues., 6:00 p.m.....Thanksgiving Vacation Begins
Nov. 26, Mon., 8:00 a.m.....Thanksgiving Vacation Ends
Dec. 3, Mon.....Illinois Day (State admitted to the Union, 1818)
Dec. 21, Fri., 6:00 p.m.....Christmas Vacation Begins
Jan. 3, Thurs., 8:00 a.m.....Christmas Vacation Ends
Jan. 16, Wed.—Jan. 24, Thurs.Semester Examinations

1952 — SECOND SEMESTER

Jan. 22, Tues.—Jan. 30, Wed.Orientation Period
Jan. 31, Thurs.—Feb. 2, Sat.Registration
Feb. 4, Mon.Instruction Begins
Mar. 2, Sun.....University Day (University opened, 1868)
Apr. 10, Thurs., 6:00 p.m.....Easter Vacation Begins
Apr. 17, Thurs., 8:00 a.m.....Easter Vacation Ends
May 9, Fri.Honors Day
May 30, Fri.Memorial Day
May 24, Sat.—June 3, Tues.Semester Examinations

1952 — SUMMER SESSION (8 Weeks)

June 13, Fri.—June 14, Sat.Registration
June 16, Mon.Instruction Begins
July 4, Fri.Independence Day
Aug. 8, Fri.—Aug. 9, Sat.....Summer Session Examinations

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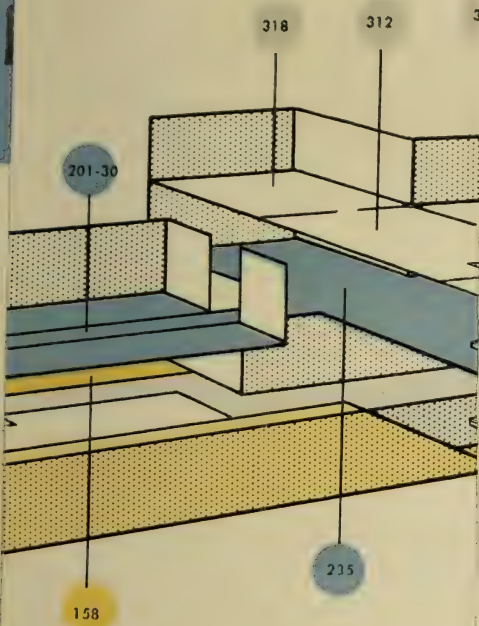
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Vietzen, Rose, A.B. in L.S., Assistant Catalog Librarian with the rank of Assistant.

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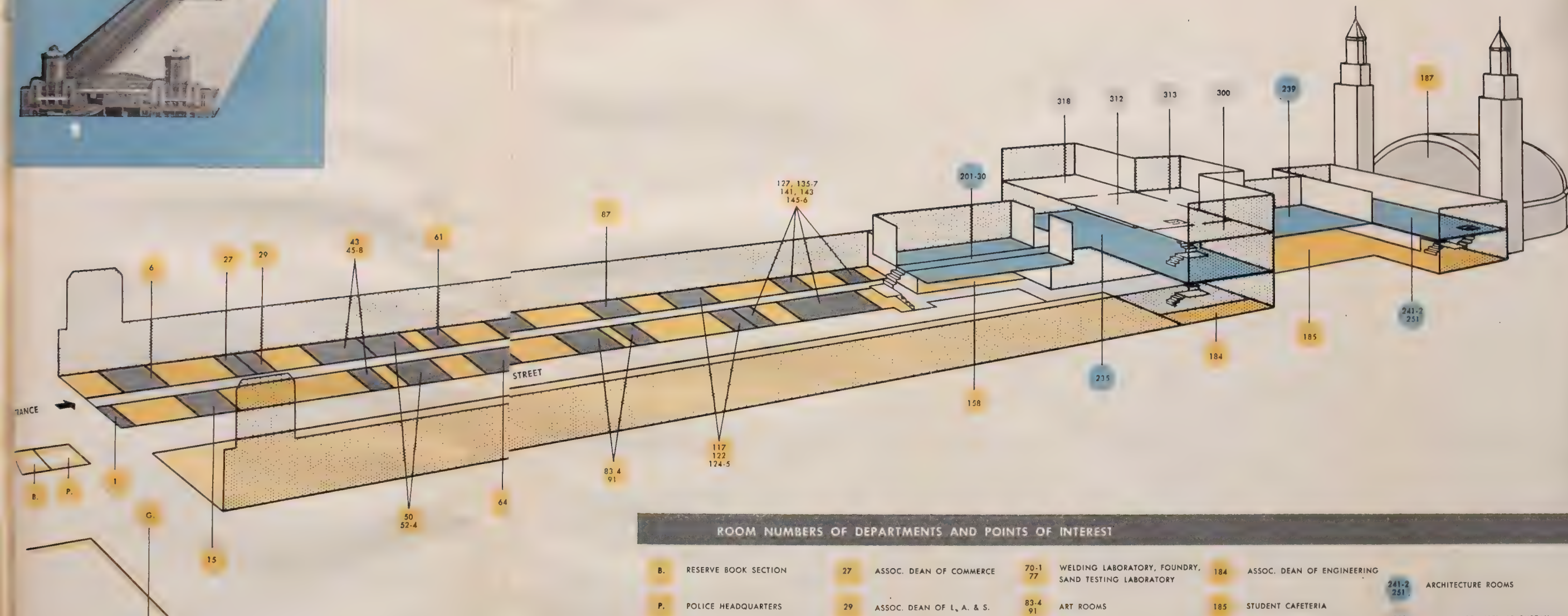
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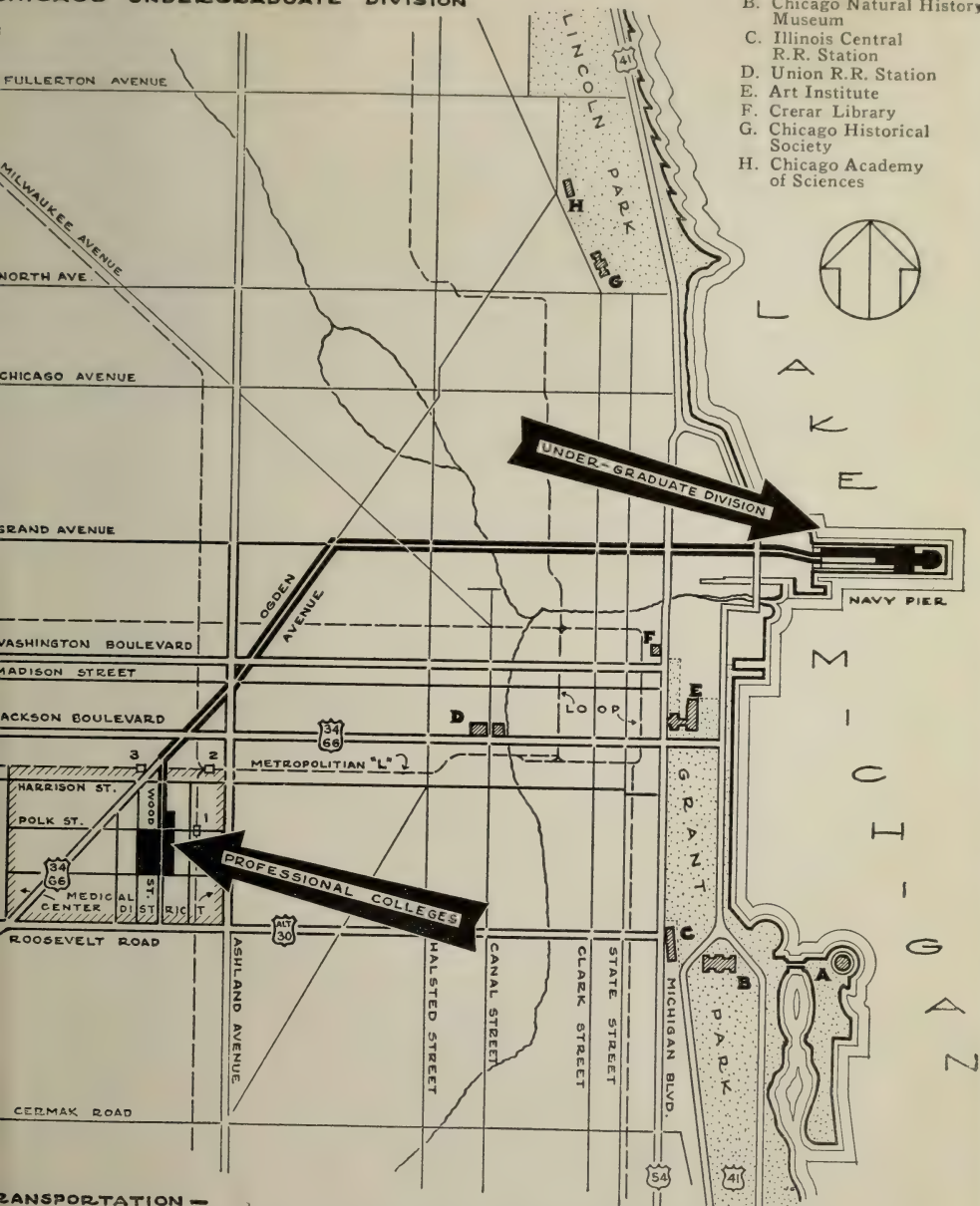
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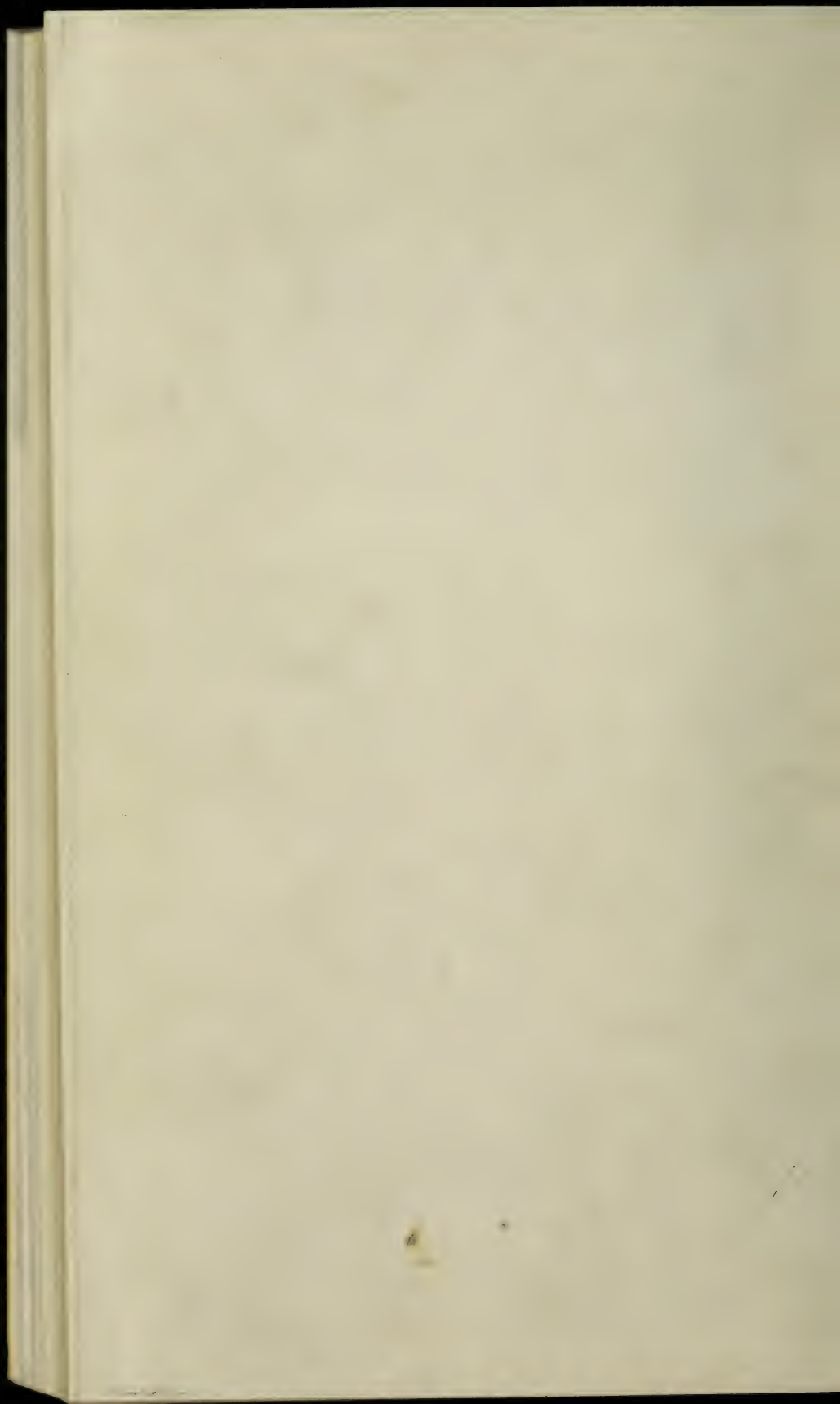
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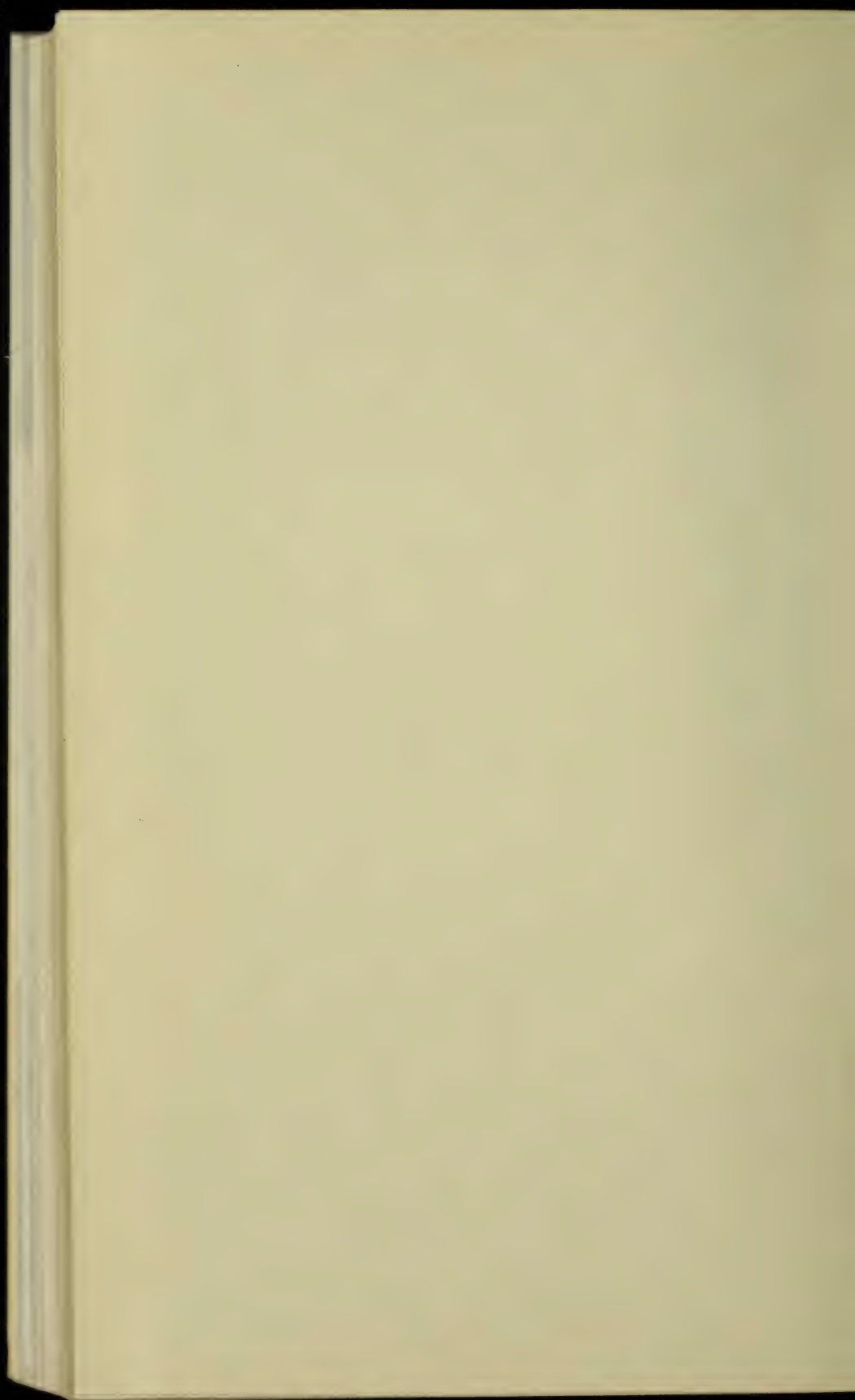
- A. Adler Planetarium
- B. Chicago Natural History Museum
- C. Illinois Central R.R. Station
- D. Union R.R. Station
- E. Art Institute
- F. Crerar Library
- G. Chicago Historical Society
- H. Chicago Academy of Sciences

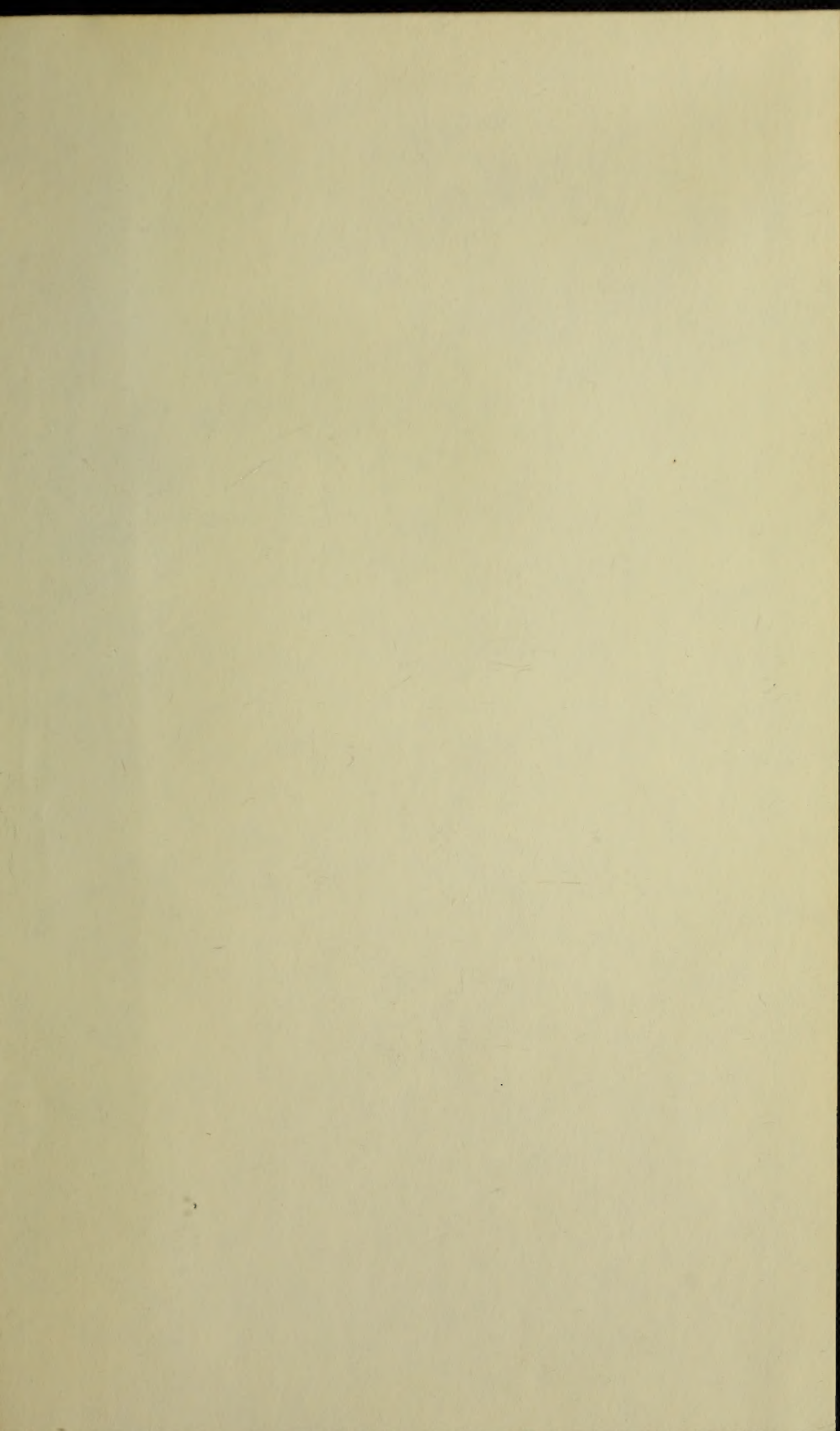


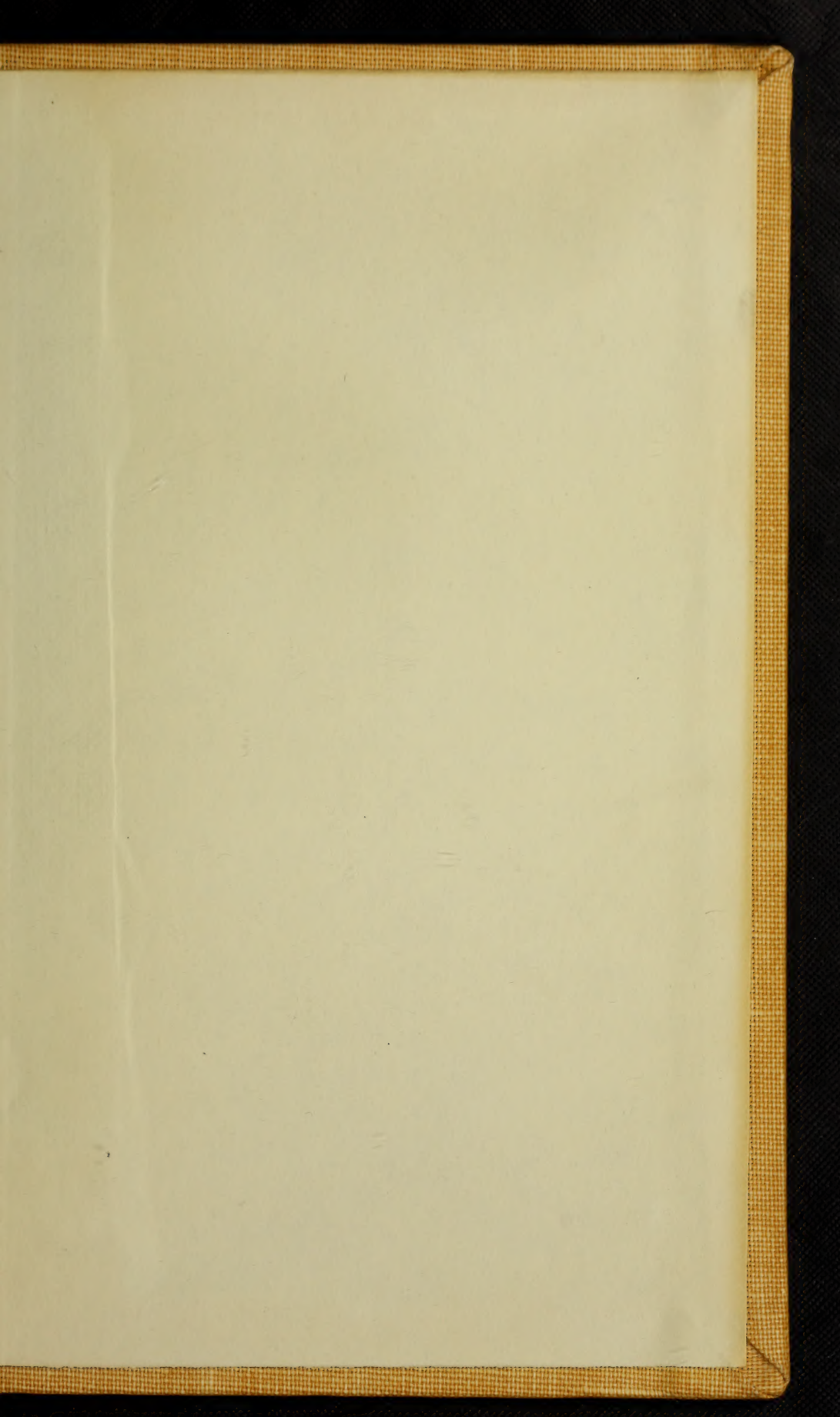
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STREET CAR — ASHLAND CAR ON PAULINA ST., TRANSFER GRAND AVENUE.
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